

The Bombay Survey and Settlement Manual

BY

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VOLUME II

PART II—TECHNICAL
PART III—APPENDICES

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VOLUME II.

PART II—TECHNICAL.

PART II.

TECHNICAL.

CHAPTER I.

INTRODUCTORY.

In Part I the subjects of Survey, Classification and Settlement were dealt with from the historical point of view, attention being paid, so far as possible, to principles rather than to detailed practice. In Part II the same three subjects are treated technically and in detail.

SURVEY.

In dealing with the subject of Survey one general description can be made to serve for all the four Surveys, as the methods employed in all were much the same. Each Survey, however, had its own rules regarding such subjects as the splitting up of large-sized numbers at Revision, for measuring roads and waste lands, etc., which are matters of detail such as cannot satisfactorily be summarised. For these the reader must be referred to the printed rules of the different Surveys, which are printed in Government Selection No. DXXXII, New Series, i.e.,

(1) The Deccan and Southern Maratha Country Revision Measurement Rules.

(2) The Gujarat Survey Revision Measurement Rules.

(3) The Konkan Survey Revision Measurement Rules.

(4) The Kanara Measuring Rules.

For the detailed work of Measurement as carried out in the field Captain Wingate's Measurement Rules of 1853 may be studied with profit.

The most important of the Measurement Records are described in Chapter X—"Survey Records".

CLASSIFICATION.

Under the head of "Classification" two subjects are dealt with, *viz.*, Classification proper (Chapters III–VI) and the Distance from Village Scale (Chapter VII). In dealing with Classification each Survey has been taken separately and the system of Classification employed in the case of each class

of land thereunder described in detail. In so doing the Classification Rules of the different Surveys, which were naturally not drawn up on one homogeneous system and are thus confusing in the mass, have, so far as possible, been reduced to one form and so, it is hoped, rendered easier of comprehension. Selected illustrations also are given of the system of working out the classification values as this is often of a complicated nature.

As the Classification Rules have been fully summarised in each case it is unnecessary to print the rules themselves in this volume. For purpose of reference, however, they are printed as they stand in Government Selection No. DXXXII, New Series. They comprise the following:—

(1) *The Gujarat Revision Classification Rules.*—These are not complete as they only describe the Classification work actually to be done at Revision and do not, therefore, give the system as applied, *e.g.*, to Dry-crop, which was not re-classed.

(2) *The Konkan Revision Classification Rules.*—These are the revised rules of 1885. For the Ratnagiri Survey the "Rules for the Classification of Sweet Rice Land in the Ratnagiri Zillah", which also includes the rules for the Classification of the other classes of land should be referred to.

(3) *The Kanara Classing Rules.*—For the qualifications with which these rules have to be read, see under the chapter upon the "Kanara System of Classification" (Chapter VI).

(4) *The Deccan and Southern Maratha Country.*—There is unfortunately no detailed compilation of Rules for Classification in these Surveys beyond the "Wingate's Rules" of 1853, which are, of course, very incomplete. The sources of such detailed information are the circulars issued from time to time by various Superintendents, the Settlement Selections and the actual Classification Records contained in the Survey Offices. There are, it is true, certain so-called "Revision Classification Rules" for the Deccan Survey, which are printed in the Selection with other rules, but they refer mainly to the methods to be adopted in adjusting the old to the new classification and do not give detailed rules as to the system of classification itself.

As in the case of Measurement, the principal Classification Records are described in Chapter X.

SETTLEMENT.

Under the head of "Settlement" (Chapter VIII) are described the methods to be adopted by the Settlement Officer *in submitting proposals for a modern Revision Settlement with* the latest Government orders on the subject in the form of the "Instructions to Settlement Officers". A separate chapter (Chapter IX) is given to the "System of calculating the Assessment" which, though apparently of minor interest, is yet in point of fact a most important subject, as the method of calculation, has, in the past, had great influence upon the actual rates of assessment themselves

The most important of the Settlement Records are also *described in the chapter upon "Survey Records"* (Chapter X).

CHAPTER II.

SURVEY.

THE objects of the operations included under the head of Survey were the following :—

(i) The measurement of the village lands and the preparation of the Survey Records based thereupon.

(ii) The construction of maps—village, taluka and district.

(iii) The demarcation of boundaries by means of boundary marks.

Most of these questions have already been dealt with in sufficient detail in the course of the historical account given in Part I. A short summary, therefore, is all that is required here

(i) *The Measurement of the Village Lands.*

The first operation incidental to the measurement of the village lands was that of preparing a "skeleton map" for the plotting of the village map. This operation was carried out in the different Surveys in one of two ways :—

(a) *By theodolite alone.*—Without going too deeply into technical details, the system was that known as a "traverse", by which the Surveyor measured round the village boundaries with the theodolite, thus producing a map of these outside boundaries: and then took angles by the same means to other conspicuous points within the village lands—and especially to stations of the Great Trigonometrical Survey—thus producing a "skeleton map" on which the measurers could plot the measurements of the survey numbers and so construct the village map.

(b) *By theodolite and base line.*—According to this system, while the outside boundaries were measured by the theodolite the internal skeleton was formed by running one or two main "base lines" across the village lands with subsidiary "base lines" therefrom. In measuring the village lands, the numbers situated upon these base lines were measured first and plotted and the remaining numbers fitted in subsequently upon the skeleton thus formed.*

The second operation was that of detailed measurement. This comprised—

(a) the division of the village lands into survey numbers, with their sub-divisions, *pôt* or *phalni* numbers according to the rules of the particular Survey and their measurement

* For practical field measurement *vide* the *Manual of Land Surveying.*

either by chain and cross-staff or theodolite as the case might be :

(b) the measurement of lands not included in survey numbers, such as rivers, roads, *nalas*, forests, etc., either by theodolite, chain and cross-staff or by simply plotting them into the village map and taking out the area by scale.

As regards (a), the reader must be referred for full details to the Measurement rules of the various Revision Surveys. Here it is only possible to summarise the rules governing the division of lands into survey numbers.

(1) The minimum area of survey numbers was fixed as follows :—

Scale of minima.

Name of district	Description of cultivation or class of land.	Minimum area. A.	g.	Authority.
Gujarat (all districts)	Dry-crop	1	0	G. R. No. 2161, dated 29th May 1869
	Garden	0	20	
	Rice	0	20	
Deccan (all districts)	Dry-crop	1	0	G. R. No. 6577, dated 16th August 1905.
	Rice	0	10	
	Garden	0	10	
Thana	Rice	0	10	Government Notification dated 6th October 1869 (*B. G. G.*, Part I, page 1129)
	Garden	0	10	
	Jirayat	3	0	
Ratnagiri	Rice	0	5	
	Garden	0	5	
	Varkas	2	0	
Belgaum, Dharwar, Bijapur.	Dry-crop	6	0	
	Rice	1	0	
	Garden	0	20	
North Kanara (settled talukas of the Below-Ghat districts, viz. 1 Karwar, 2 Ankola, 3 Kumtha, 4 Honavar)	Dry-crop	5	0	G. R. No. 5594, dated 11th November 1872
	Rice	0	5	
	Garden	0	5	
	Kumri	5	0	
Above-Ghat districts— 1 Haliyal, 2 Yellapur, 3 Sirsi, 4 Siddapur	Dry-crop	3	0	G. R. No. 8071, dated 13th October 1896.
	Rice	1	0	
	Garden	0	20	

Holdings falling short of these *minima* were clubbed together to form a number of the standard size, exceptions only being made in cases where the Settlement Commissioner allowed sub-division into smaller numbers upon the personal application of the occupants, accompanied by pre-payment of the cost of measurement.

The *maximum* area was fixed by the rules of the various Surveys.

(2) Where sub-occupancies were clubbed together in this way they were formed into *pôt* numbers within the Survey.

(3) In the case of "mixed numbers", *i.e.*, those containing more than one class of land, such as Dry-crop and Rice or Rice and Garden, in the Konkan each class was separately demarcated and formed into a *pôt* number in the case of Rice and Garden and into a *phalni tukda* in the case of *varkas*. In the other Surveys, though each class was separately measured, no demarcation was made in the field.

(4) "*Inam*" *holdings and lands set apart for public purpose* were usually formed into separate survey numbers, though this rule was largely broken in the Southern Maratha Country and the Konkan.

As regards (*b*), made roads, canals, railways, etc., were measured either by the chain and cross-staff or theodolite or simply by scale from the map as was convenient and made the boundary of the survey numbers through which they passed. Cart-tracks and other unmade roads were usually included as *pôt-kharab* within the survey number through which they passed and shewn on the village map as a dotted line.

Forest areas were measured either by theodolite or by scale from the map.

(ii) The Construction of Maps.

(*a*) *The Village Map.*—The village map was constructed by first laying down the traverse and base lines and then plotting thereupon the separate survey numbers. *Three copies* were prepared, one the so-called *kacha* or rough copy and then two *pala* maps or fair copies, one for the use of the classer and the other for printing purposes. The scale of these maps is usually 20 chains (660 feet) to the inch, though, where the survey numbers are unusually small, as in the Konkan, it is sometimes 10 chains. It must be noted that only the survey numbers appeared in the body of the map, the *pôt* numbers being relegated, in Gujarat to the side of the map where they were shewn in separate sketches on a larger scale, in the Deccan to

special books of such numbers called " Gat " books and in the Konkan to a special village record called the " Sud."

(*b*) *The Taluka Map* —This map was constructed by piecing together the traverses of the individual villages in the manner already described. The scale of these maps is 2 miles to 1 inch.

(*c*) *The District Map.*—The [illegible] to form the district map just [illegible] to form the taluka map. The [illegible] map.

(*iii*) *The Demarcation of Boundaries.*

The various descriptions of Boundary mark used in the different Surveys are as under :—

Mark.	Length	Breadth bottom.	Breadth top	Height	In what Survey used.
Mound	5 as.	2½ as.	¼ anna	1½ as	All.
Stone	1½ to 2 haths long		3 fingers thick		Deccan.
	1¼ haths or over		3 inches thick		Konkan.
	2½ feet or over		6 inches thick		Gujarat.
	1 anna long, ¼ anna wide, 4 fingers thick				Kanara
Stone cairn (Buruj).	At bottom		2 as square		Konkan only
	At top		1½ as. square		
	Height		2 as.		
Khunt a mark made of bricks (25) and chunam (80 seers): 20 inches high, 1 foot square, 15 inches in ground.					Gujarat.
Hedge					Deccan Gujarat.

These marks were erected—or, in the case of hedges, allowed to count as a mark—by the measurers in accordance with rules that varied somewhat for the different Surveys. The main principles, however, were—

(*a*) that the main corners of survey numbers were marked by two or more mounds pointing the boundary with intermediate mounds where the boundary was of considerable length :

(*b*) that bends upon the boundary, not being main corners, were marked by stones, or a *khunt.*

The chief variation from these rules is to be found in the case of the Konkan where the main corners of small numbers were allowed to be demarcated by either a combination of a mound and one or two stones or in very small numbers by one single stone at each corner.

In the case of *pôt* numbers the corners were demarcated either by 3 stones as in Gujarat or by single stones as in the Deccan and Konkan.

In the Deccan and Konkan it was customary in addition to demarcating the boundaries of survey numbers to mark the "tri-junction point" of two or more villages by means of stones with a cross or arrow cut in the top.

These boundary marks were shewn in the village map by the following conventional signs :—

Mound	▭	Khunt	□
Stone	○	Hedge	—×—×—×—×—×
Cairn	▭	Tri-junction mark	△

	Konkan.	Deccan.
Marks erected by the Forest Department	⊕	□
Topographical Survey Stations	△	

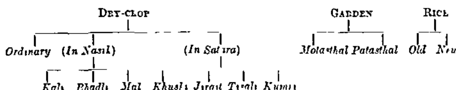
Note.—By Government Resolution No 7671 of 18th August 1914 the experiment has been ordered to be tried of reducing the number of boundary marks by substituting the single mound and single stone for the 2, 3 or 4 mounds or stones of the Survey Rules.

CHAPTER III.

THE DECCAN INCLUDING THE SOUTHERN MARATHA, SYSTEM OF CLASSIFICATION.

UNTIL the year 1886 the Deccan and Southern Maratha Surveys were nominally distinct, but they had been virtually amalgamated 9 years before when the abolition of one of the Survey Commissionerships brought them both under the administration of Colonel Anderson. They will, therefore, be dealt with together in the present chapter.

The Land Classes of the Deccan Survey are the following :—



Dry-crop.

The Dry-crop lands of the Deccan Survey fall into two large divisions, *viz.*, firstly, the Dry-crop of the "plain" talukas comprising lands in which dry crops are grown every year, and secondly, the shallow, poor soils of the "hill" talukas of Nasik and Satara, corresponding to the *varkas* of the Konkan in which crops are usually grown only with long intervals. In Nasik the latter class was classified under rules which are practically the same as those applied in the Konkan, but in Satara a special code of rules was applied called the "Kolhapur Hill Rules" from having been first brought into operation at the Survey of the Kolhapur State.

The system of Classification in the case of Dry-crop will, therefore, be divided into three sections: *viz.*, first, that of the plain talukas, secondly, that of the hill talukas of Nasik, and thirdly, that of the hill talukas of Satara.

(1) *The Dry-crop of the plain talukas.*

In ordinary Dry-crop lands the chief factor of value is that of the Soil which, therefore, in the Joint Report and all subsequent systems, forms the basis of the classification. There are

however, Dry-crop lands which possess exceptional advantages over the ordinary class and which, therefore, according to Survey principle, should receive a higher classification value. Such lands under the Deccan system are those—

(i) which are situated close to a *nala* or stream from which irrigation is practicable by means of a *bhudki*;

(ii) which have a deposit of silt from the overflow of rivers or streams;

(iii) which are favourably situated for receiving the drainage from higher grounds and so have a superior supply of moisture.

(iv) which, though not actually irrigated from a well, are yet clearly capable of being so irrigated.

In all these cases the "advantage" over the ordinary soils was allowed for by making an increase to the soil classification in accordance with a scale for each factor.

The Dry-crop scale—The Dry-crop scale as given in the Joint Report, with the addition of the 10th class made by Wingate, was as follows—

Classification Scale.

Class.	[illegible]	Soil of the 1st Order.	Soil of the 2nd Order.	Soil of the 3rd Order.
		Of a fine uniform texture, varying in colour from deep black to dark brown.	Of uniform but coarser texture than the preceding, and lighter also in colour which is generally red.	Of coarse, gravelly or loose friable texture, and colour varying from light brown to grey.
1	[illegible]	[illegible]	4	5
		Cubits in depth.	Cubits in depth.	Cubits in depth.
1	16	1 [illegible]	1 [illegible]	....
2	14	1 [illegible]	1 [illegible]	....
3	12	1 [illegible]	1 [illegible]	....
4	10	1	1	....
5	8	[illegible]	[illegible]	....
6	6	[illegible]	[illegible]	1
7	4½	[illegible]	[illegible]	[illegible]
8	3	....	[illegible]	[illegible]
9	2	....	....	[illegible]
10	1	....	....	....

Of these classes the 10th was meant for application in the case of soil that cannot be cultivated throughout and, even where cultivable, is only capable of producing a fodder crop.

Faults.

Faults.—The recognized deteriorating factors or "faults" with their conventional marks are the following:—

No	Mark	Fault.	Description
1	·.	Chunkhad	.. A mixture of minute fragments of nodules of limestone.
2	>	Gochu	.. The same as the above, only that the nodules are larger.
3	/	Utarvat	.. Sloping surface.
4	V	Valsar	.. A mixture of sand.
5	×	Resvat	.. Want of cohesion among the constituent particles of the soil, arising from the presence of fine sand.
6	⌒ ⌒	Dupan	.. Liability to be swept over by running water.
7	▭	Upalvat	.. Excess of moisture from surface springs.
8	Λ	Karal	.. Clayey soil, which when dry turns very hard, which does not easily absorb water, and which, if once wetted, does not dry soon. It is sometimes so bad that even grass will not grow on it. In this case it was entered as *parampok* (unculturable).

With respect to the method of applying these "faults" in actual practice the following explanations are given by the Survey Rules:—

1. Chunkhad .. In a wet climate minute fragments of lime counteract the effects of excess of moisture and should not, therefore, be considered and given as a fault.

2. Gochu .. Large nodules of lime, when met with thickly strewn over a field, should be given as a fault, as they tend materially to diminish fertility.

3. Utarvat .. This fault may be given when the surface slopes so much as to prevent moisture being retained in the soil.

4. Valsar .. As a rule, sand is found more or less in all except clayey soils. When the grains are large and there is such a quantity present as to cause clods of earth, when taken up, to crumble, then a fault should be given.

5. Resvat .. When fine sand is found to such an extent in the soil as to cause want of cohesion, a fault should be given.

6. Dupan .. In some cases, instead of being a fault, it is an advantage, as the moisture retained in the soil adds to fertility; when, however, the running water washes away the soil a fault should be given.

7. Upalvat .. Whenever this fault is met with, one or two faults, to meet the extent of damage caused, should be given.

8. Karal .. One, two or three faults should be given according to its deteriorating effects. As a rule, when two or three faults of clay are in the soil, it is impervious to moisture except in very good seasons of rainfall. Argillaceous clay is the worst kind, on which even grass will not grow; in such a case the land should be entered as unarable. Heavy clods of earth denote the presence of clay and absence of sand: when this is found to be the case, half or one fault should be given according to its presence.

If a full fault was not present, half a fault might be given, which was denoted in the classification sketch by inclosing the conventional mark in a bracket thus :—

This soil scale was that adopted in the Belgaum, Dharwar and Bijapur districts. In the Deccan proper, however, the scale more generally used was one in which there was no 10th class of soil and the last three classes were—

Variations from this scale

Class.	Anna value.
7	4
8	2
9	1

There are, however, a good many variations in the scales applied to different talukas even in the same district; *e.g.*, the following different scales were used in the Poona district:—

Class	Scale No 1	Scale No 2	Scale No. 3.	Scale No 4.	Scale No. 5.
	Annas.	Annas	Annas	Annas	Annas
1	16	16	16	As No. 3.	As No 3.
2	14	14	15		
3	12	12	13		
4	10	10	11		
5	8	8	8-6		
6	6	6	6		
7	4	4	4	4-6	4-0
8	3	2	2	3-0	2-6
9	2	1	1	2-0	1-6
10	1	...	...	1-0	1-0

Similar variations will be found in the scales employed in other districts.

For reasons previously given, however (Part I, p. 125), the strict anna valuation according to the scale was altered in parts of the Satara and Bijapur districts by the addition of "scale increases," the object being to raise the classification value of the better class of soils in proportion to that of the poorer classes in

Scale increases.

order to prevent the over-assessment of the latter. These increases were made according to the following scales :—

Scale.

	Original Bhag Annas.		Increase.		Where used.
	As.	As.	As.	p.	
1.	16 to	12	2	0	First used in the western districts of Satara where the better class lands were highly cultivated and maximum rates were high. Hence great danger of over-assessing poor soils.
	12 ..	10	1	6	
	10 ..	8	1	0	
	8 ..	6	0	6	
2.	16 to	12	1	6	Used in the case of talukas possessing the same advantages, but in a minor degree than in the western talukas of Satara.
	12 ..	10	1	0	
	10 ..	8	0	6	
3.	16 to	12	1	0	Used in part of the Bijapur taluka.
	12 „	11	0	9	
	11 ..	10	0	6	
	10 ..	9	0	3	

Scale decreases

In the following talukas "scale decreases" were made in accordance with the scale given in order to carry out the orders of Government for a reduction of the assessment of these talukas for reasons explained in Part I, p. 168 :—

District.	Taluka.
Poona	Indapur
	Bhimthadi
	Pandharpur
	Haveli
Sholapur	Sholapur
	Madha
	Barsi
	Pabal
	Supa petha
	Karmala

Reductions made.

Soil annas.			Reduced by	
as.		as.	as.	
10	to	4	1	0
2	to	0	0	6
1	to	0	0	3

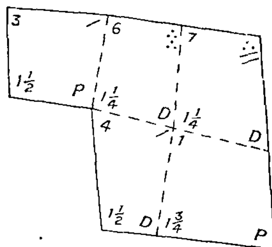
Working out of classification.

On the opposite page can be seen the classification of a dry crop number worked out according to the Joint Report scale with scale increase added. (*Vide* Example No. 1.) The only point that calls for special attention is the

expression "kayam bhag annas". This means the final "bhag" or classification annas of the number after the elimination of fractions of annas, 10 annas 7 pies in the example becoming 10 annas 6 pies.

EXAMPLE No. 1.

Dry-crop.



Class.	*Shares.*	*Annas.*
1	*1*	*16*
3	*1*	*12*
4	*1*	*10*
6	*1*	*6*
7	*1*	*4½*
Total ..	*5*	*48½*

	as.	*p.*
Average bhag annas ..	*9*	*7*
Add scale increase (scale 1) ..	*1*	*0*
Total ..	*10*	*7*

	as.	*p.*
Kayam bhag annas ..	*10*	*6*

(b) Land possessing the advantage of silt deposit.

Two methods of classifying such lands exist: one, the system used before 1872, and the second, that employed after that date.

(a) *Before* 1872.—Previous to 1872 such alluvial lands were divided into 3 classes according to the amount of the deposit as follows:—

Class	Anna valuation.
1	20
2	18
3	16

Under this system these lands were classed solely according to their surface appearance, no depth being taken, as it was presumed that they were of full depth.

(b) *After* 1872.—After 1872 the soil classification of such lands was done in accordance with the ordinary soil scale, but additions were made thereto in accordance with the amount of the deposit according to the following rules:—

Class 1.—Increase to soil annas. 2 annas—

When the land is overflooded once or twice during the rains, but there is not much alluvial deposit

Class 2.—Increase to soil annas: 4 annas—

(a) Where there is a large alluvial deposit, but the land is not of an even surface, and retaining the water does not dry quickly and there is difficulty in sowing a crop.

(b) Where there is a large alluvial deposit, but it does not lie evenly over the land and in some places is liable to be washed away.

Class 3.—Increase to soil annas: 6 annas—

(a) Where there is a large alluvial deposit and the land being of an even surface dries quickly and there is no difficulty in sowing a crop.

(b) Where there is a large alluvial deposit and the land is of an even surface but does not dry until about a month after the close of the monsoon, yet owing to the proximity of the water *brinjals* and other garden crops and superior late Dry-crop can be grown.

The example (No. 3) shews how the classification was made. The increase so made to the soil annas was known technically as "Alluvial chad."

Example No. 3.

Alluvial Chad.

Class.	*Shares.*	*Annas.*	*Extra.*
1	*1*	*16*	*6*
2	*1*	*14*	*4*
3	*1*	*12*	*4*
4	*2*	*20*	..
Total	*5*	*62*	*14*

	as. p.	*as. p.*
Average bhag annas ..	*12 5*	*2 10*
Add alluvial chad ..	*2 10*	
Total ..	*15 3*	

	as. p.
Kayam bhag annas	*15 6*

Notes.—(*1*) *The single line shows the limit of inundation*
(*2*) *The additional figures in shares 1, 2 and 3 shew the class of alluvial deposit.*

Explanation.

Inundation and silt deposit extend over the whole of shares Nos. 1, 2 and 3: so additions have to be made according to rule to the soil annas of these shares Now in shares 1 and 2 the additional figure "2" shews that the class of silt deposit thereon is the second and the figure "3" in the third that the class of deposit is the third An addition of 4 annas is, therefore, made to the soil annas of the first two shares and of 6 annas to the third and the total addition is then averaged over the whole number.

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Example No. 3.

Alluvial Chad.

Stream. Share 1 2·2 1½ P 4 " 2 3 2 1¼ P 1 4 P " 3 1 3 1¾ P 1 P

Class.	*Shares.*	*Annas.*	*Extra.*
1	*1*	*16*	*6*
2	*1*	*14*	*4*
3	*1*	*12*	*4*
4	*2*	*20*	..
Total	*5*	*62*	*14*

	as. p.	*as. p.*
Average bhag annas ..	*12 5*	*2 10*
Add alluvial chad ..	*2 10*	
Total ..	*15 3*	
		as. p.
Kayam bhag annas		*15 6*

Notes—*(1) The single line shows the limit of inundation.*
(2) The additional figures in shares 1, 2 and 3 shew the class of alluvial deposit.

Explanation.

Inundation and silt deposit extend over the whole of shares Nos. 1, 2 and 3: so additions have to be made according to rule to the soil annas of these shares. Now in shares 1 and 2 the additional figure "2" shews that the class of silt deposit thereon is the second and the figure "3" in the third that the class of deposit is the third. An addition of 4 annas is, therefore, made to the soil annas of the first two shares and of 6 annas to the third and the total addition is then averaged over the whole number.

(c) Land possessing the advantage of receiving drainage from higher lands.

In a trap country, such as that of the Satara and Khandesh districts, the lands lying in the plains and valleys have an obvious advantage over those which lie on higher ground, owing to the greater amount of drainage which they receive, the effect of which is to raise the level of the sub-soil water and, therefore, to facilitate the construction of wells, and also to add to their stock of natural moisture. In 1885, therefore, Mr. Fletcher, the Superintendent, Deccan Survey, put forward a scheme for taking this advantage into account by making a graduated addition to the soil classification of lands possessing such advantages in accordance with a scale which was called technically the "General Position Class" scale. According to this scale 4 classes of position were recognized as follows :—

The "General Position Class."

Class.	Description.
1	Land flat, with no general slope, and situated as a rule on the lowest level of the cross-section of its own valley or depression, as it must receive plenty of drainage from the land above. (This class was sparingly used)
2	The gently sloping lands in the bottom, as well as the flat or nearly flat lands which lie low, though not on the lowest level of the cross-section of a valley or line of drainage. (This class covered the largest portion of the areas in a plain country.)
3	Level or nearly level land in too high a situation to receive benefit from surface drainage and also moderately sloping lands which adjoin lands of the 2nd position and possibly intervene between them and 4th position.
4	Ridges and steep slopes where no moisture will lie.

Additions were then made to the soil annas of survey number in accordance with the following scale which was applied to all the talukas of the Satara and Khandesh districts,

except Man of Satara for which a slightly different scale was employed :—

General Position Class Scale.

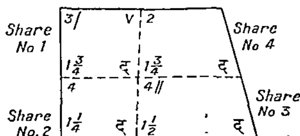
Soil Annas.		Addition						
		1st Position	Intermediate	2nd Position	Intermediate	3rd Position.	Intermediate	4th Position
as.	as	as p	as p.	as p.	as. p.	as. p	as. p.	as. p.
From 16 to 12		3 0	2 6	2 0	1 6	1 0	0 6	..
Under 12 „ 9		2 6	1 6	1 0	1 0	0 6	..	..
„ 9 „ 6	..	2 0	1 6	1 0	0 6	..	..	..
„ 6 „ 3		1 0	1 0	0 6	..	..	..	..
„ 3 „ 0	..	0 6	0 6		.	..	..	..

(*d*) *Lands capable of well-irrigation.*

These lands were classified by the system of "Position Class" as described on page 280.

Pôt-kharab.

Before proceeding to deal with the other "land classes" it is desirable to explain the Deccan system of calculating the area of *pôt-kharab* in the survey number. In the Deccan such areas were not measured, but were calculated by eye-estimate at the time of classification and reduced to figures in the following way .—



Suppose that the survey number given above to be 4 acres in area. Then, as it is divided into four shares, the area of each share will be about 1 acre. At the time of classifying share 1 the classer notes that it contains *pôt-kharab* equal to about quarter of the whole share: he, therefore, makes the vernacular sign for quarter (।) in the top left hand corner of the share. In shares 2 and 4 there is no *kharab*, but in share 3 it amounts to half the whole share: he, therefore, makes the sign for half (॥) in the same way. The total area of *pot-kharab* can then be calculated in the office for, as the area of each share is 1 acre or 40 gunthas the quarter share of share 1 is equal to 10 gunthas and the half share of share 3 to 20 gunthas, or a total *pót-kharab* area of 30 gunthas.

Theoretically of course, as the assessment of survey numbers is supposed to be fixed upon the arable area only, the deductions of *pôt-kharab* in the shares should be taken into account in working out the total classification value of the whole number. Thus, in the example given above the working should be—

Share No	*Class.*	*Shares*	*As*	
1	*3*	$\frac{3}{4}$	*9*	($\frac{1}{4}$ *share deducted for kharab*).
2	*1*	*1*	*10*	
3	*4*	$\frac{1}{2}$	*5*	($\frac{1}{2}$ *share deducted for kharab*).
4	*2*	*1*	*11*	
Total	..	*3*$\frac{1}{4}$	*38*	

	as. p.		*as. p.*
Bhag annas	.. *11 8*	*Kayam bhag annas*	*11 6*

In some districts this was done; in others, however, no account was taken of the deductions of *pót-kharab* from individual shares, *e.g.*, in the above example shares 1 and 3 would be treated as whole shares and not as $\frac{3}{4}$ and $\frac{1}{2}$ in working out the classification value of the number. The point is not of much importance, but should be remembered when studying classification records.

(ii) *The Hill Talukas of Nasik.*

In the Dangi villages of Nasik two systems of classification were employed in the case of Dry-crop lands: one for the talukas of Dindori and Nasik and the other for the taluka of Peint.

(1) *Nasik and Dindori.*—The classification of the Dry-crop lands in these talukas was carried out by Mr. Tytler in 1860 and his classification was confirmed at Revision. Mr. Tytler divided such lands into two classes, *viz.*, the *kali* or black soils cultivated every year with wheat, gram, etc., and the *mal* or red soils cultivated at intervals of several years with hill crops, such as *nagli, kumani, sava, udid,* etc. This division corresponds closely with that of the Konkan Dry-crop into *rabi* and *varkas.*

The scales applied in these two classes were as follows :—

Kali lands.

Class	Anna valuation	Order of soil		
		Kali munjal and tambur kevtal (fine black and dark red soils)	Korhal and tambur korhal (coarser than the 1st class)	Borkhat or barad (gravelly soil).
.		Depth.	Depth	Depth.
1	18	Over 1½ haths		.
2	15	„ 1 „	Over 1½ haths	.
3	12	„ ½ „	„ 1 hath	
4	9	Under ½ „	„ ½ „	..
5	6		Under ½ „	.
6	4	.	..	All depths.

Faults.—As under the ordinary Dry-crop scale.

With reference to this scale Colonel Taverner remarks :—

"From the classification scale above shewn, it is manifest that the relative value of *kali* land in the Dang districts was not supposed to decrease so rapidly with reference to decrease of depth as that of the *rabi* land of the Desh, or open country of the Deccan, for which the Joint Report scale was made applicable. The reason is doubtless that with four times the amount of rainfall (the rainfall at Igatpuri and the line of the *ghats* averaging 100 inches or more) the productive power of the shallower soils is relatively greater, with reference to the deeper soils, than is that of the lower classes of soils according to the classification scale of the Desh country."*

Colonel Taverner gives in his report an extract from an old classification book, shewing how the classification of *kali* land was carried out.

* Paragraph 25 of Lieut.-Colonel Taverner's letter No 893 of 15th October 1895, Appendix R to Second Revision Settlement Report of the Dindori Taluka

Mal Lands.

The classification scale for this class of land was the following:—

Class.	Name.	Anna value	Description.
1	Aval	7	1. Red level land, with or without small round stones, destitute of *murum* and of good fine soil
			2. Red soil like the above sloping from west to east, but not so that its substance is washed out.
			3. Land formed by the alluvion of rivers or *nalas* or by rain in hollow ground.
			4. Blackish land, if level
2	Dum	5	1. Reddish shallow soil tolerably level with small stones and *murum* mixed.
			2. Blackish soil, sloping, clayey or tough.
3	Sim	4	1. Good red soil, but so sloping that, if ploughed, its substance is washed out and lost.
			2. Black soil, so sloping as not to retain moisture.
4	Charsim	3	Sloping sides or peaks of hills only fit for *dhalli* and not admitting of the plough
5	Kharab		Rocky or stony ground, totally unfit for cultivation

(2) *The Peint Taluka.*—This taluka was settled in batches of villages between the years 1889-1896. As the conditions of the hill tracts were rather those of the Konkan than of the Deccan, the Konkan system of classification was ordered to be applied to the hill lands. They were, therefore, divided into two classes, *viz.*, *bhadli* and *mal*, corresponding to the Konkan *bhatle* and *varkas*, the former comprising the superior, the latter the inferior kinds of these soils.

The classification system applied to these two classes was exactly the same as that of the Konkan *bhatle* and *varkas* (*vide* p. 347). From the Peint Settlement Report, however (p. 41), it would appear that the work was not done as satisfactorily as it might have been, owing to the fact that the Deccan classers who carried it out did not understand the Konkan system.

(iii) *The Hill Talukas of Satara.*

"The Hill Rules," says Mr. Ozanne, "were meant to apply to villages at the heads of valleys, and on the slopes and plateaux of hills, in which, owing to excessive rainfall, only such hill grains, as *nachni*, *sava* and *vari* are grown. In villages partly on the hills and partly in the plain they were applied to the hilly portions, the low-lying lands being classed under the Joint Report scale. In doubtful cases the hill lands were classed under both scales, the Superintendent deciding which should be used in assessment."*

The hill talukas of Satara are Wai, Javli, Patan and Satara. Just as in Nasik, the Dry-crop lands of these villages correspond rather to those of the Konkan than the Deccan, and in the system of classification which was applied to them the division of lands is on all fours with that of the Konkan, as Mr. Ozanne shews: "Dry-crop was divided into 'khuskhi' (the Kanarese for dry-crop), 'jirayat' (the corresponding Marathi equivalent), 'tisali' and 'kumri'. These very nearly correspond to the divisions of the Konkan Survey, *viz.*, rabi and varkas. Khuskhi corresponds to 'bandhi,' and 'jirayat' to 'malkhandi rabi,' and 'tisali' and 'kumri' to 'bhatle' and ordinary 'varkas' respectively."†

With reference to the conditions which the Hill Rules were intended to meet Mr. Ozanne remarks: "The rainfall is very heavy, too heavy for the successful cultivation of the better cereals. Cultivation of dry-crop land, as well as of rice, is most profitable when the seedlings are raised on a seed-bed prepared under the now well known *ráb* system. Dry-crop was also largely kumried" (that is, by burning the undergrowth on the spot to serve as manure), "but kumri is, after all, only wasteful *ráb*, and destined to die out with increased population. The value of dry-crop was small, and its classification according to the strict rules of the Joint Report would have been too costly. Moreover, these rules were largely inapplicable. It would have clearly been an error to class hill-slopes by dividing the fields into compartments and digging to ascertain the average depth The depth varies so suddenly and irregularly that, to get the average, the number of compartments would have been enormous, altogether out of proportion to the importance of the question of depth of soil in such land. As in the case of varkas, so in that of tisali and kumri, the depth was largely judged by eye, and the classification made more with reference to slope and position than to depth."†

* Paragraph 11 of Mr. Ozanne's Report, No. S.-1650 of 9th July 1891; SS. No CCXCIII Patan, p. 52.

†Paragraph 9 of the same report.

The rules under which these four classes of land, *viz.*, *khuskhi*, *jirayat*, *tisali and kumri*, were classified were as follows :—

(*i*) *Khuskhi.*

As explained above, *khuskhi* is the ordinary Deccan Dry-crop and was classed under the ordinary Deccan scale for Dry-crop lands (*vide* p. 256).

(*ii*) *Jirayat.*

According to the Kolhapur Rules "*jirayat*" is "land not being *khuskhi*, garden or rice, but owing to heavy rainfall only cultivated yearly with such hill grains as *nachni*, *sava* and *vari.*" It is compared by Mr. Ozanne to the Konkan "*malkhandi rabi*"

The soil scale used for the classification of *jirayat* is as follows :—

Class	Depth	As.	
1	1 hath	11	Black and dark brown soils only according to depth and faults
2	¾ "	9	
3	½ "	7½	
4	....	6	*All* red soils, whatever the depth.

The deteriorating factors or "faults" taken account of are :—

		Conventional mark.
1.	Valsar (Gravelly sand)	V
2.	Utarvat (Sloping surface)	/
3.	Resvat (Fine sand)	×
4.	Chopan (Deccan-Karal) (Clay)	Λ
5.	Chunkhad (Fragments of limestone)	∴
6.	Nibarpana (Hardness).	

(*iii*) *Tisali.*

Tisali is described by Mr. Ozanne as being "land which is cultivated with short fallows with *nachni* from seedlings raised in a *rab* seed-bed," and in the Kolhapur Rules as "land with a tolerably level surface which cannot be cultivated yearly." It was divided for classification purposes into two classes :—

Class.	Description	Anna value.
1	Land red in colour, not less than ½ *hath* in depth, which is level and has small embankments similar to those in rice fields to prevent the soil being washed away.	5

Class.	Description.	Anna value.
2	(a) Land red in colour, depth same as above with slightly sloping surface and in which there is no difficulty in using the plough	4
	(b) Land similar in quality to class 1, but the embankments are close together, or there is difficulty in using the plough owing to large boulders being scattered over the land	

(iv) *Kumri.*

Kumri is described by Mr. Ozanne as being "poorer land cultivated at long intervals by allowing the scrub to grow, cutting and burning it *in situ* and then sowing the crop." In the Kolhapur Rules it is simply called "hill cultivation". It also is divided into two classes, *viz.*—

Class	Description.	Anna value
1	Land which is red in colour and ½ *hath* or more in depth, which can be ploughed, but with slight difficulty owing to the steepness of the hill or to large boulders scattered over it	3
2	Land red in colour which cannot be ploughed owing to the steepness of the hill, but is dug up with a pick, or which being level enough to be ploughed is less than ½ *hath* in depth.	2

Notes —

(i) In *kumri* numbers pieces of clear level land like *tisali* were classed—
(a) if less than about ⅙ of the total area, as 1st *kumri*,
(b) if more than ⅙, as 2nd *tisali*.

(ii) Occasionally small pieces of land which cannot be cultivated yearly, from 2 to 4 gunthas in extent, were found at the sides and corners of rice numbers and included therein These were classed :—
(a) as 1st *kumri* if habitually cultivated,
(b) as 2nd *kumri* if never cultivated,
except that, if part were cultivated and part uncultivated, then, if the cultivated area exceeded the waste, it was classed as 1st *kumri*, but if the reverse was the case, then as 2nd *kumri*

(iii) [illegible]
conside[illegible]
the size[illegible]

Mixed Tisali and Kumri.

In the case of numbers containing *tisali* and *kumri* lands mixed the following rules of classification were observed :—

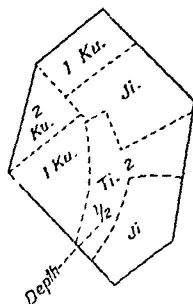
Instead of dividing each separate piece of land into classification shares as would have been done in the case of more

valuable lands, all that was done was to estimate the area of each class roughly in acres or fractions of acres according to the size of the number, treat each acre or fraction as a share and work out the total classification value accordingly.

Jirayat lands were combined into one and the same number with *tisali* and *kumri* as will be seen from Example No. 4, in which the classification of a mixed number of this kind is illustrated.

EXAMPLE NO. 4.

Jirayat, Tisali, Kumri.



Tisali and Kumri.

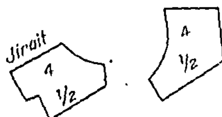
	Class.	Share.	Annas
Tisali ..	2	3	12
Kumri ..	1	3	9
,, ..	2	2	4
Total ..		8	25

	as.	p.
Average bhag annas ..	3	1
Kayam bhag annas ..	3	0

Jirayat.

	Class.	Shares.	Annas
	4	2	12
Total ..		2	12

	as.	p.
Kayam bhag annas ..	6	0



EXPLANATION.

The above is an example of a mixed number of jirayat, tisali and kumri lands, the tisali being of the 2nd class and the kumri of both 1st and 2nd. The classification of these two classes of land is worked out together, the "shares" being determined by the area of each class judged roughly. The classification of the jirayat is worked out separately below.

The Dongar class.

In dealing with the classification of Dry-crop lands under the Kolhapur Hill Rules in Satara it is necessary to take into account another factor which, though nominally falling under the head of assessment, was yet in reality a method of classification This factor is the application to the hill lands of the district in 1891 of the so-called "Dongar class" rules by Mr. Fletcher.* The object of these rules was to make a very necessary differentiation between lands situated on the tops or spurs of hill ranges and those situated at a lower elevation, the relative agricultural value of which must clearly differ considerably. In order to provide for this factor of value, therefore, Dry-crop lands situated in hill villages were assigned a *dongar* or hill class at the time of classification in accordance with the following rules:—

Class.	Description.
1	Lands situated in the plains.
2	Lands on minor spurs at no great elevation.
3	Lands situated on elevated spurs of hills or on the tops of the main ranges.

The "class" of every field was noted in the classification book.

The necessary allowance was made at the time of assessment in the following ways:—

(1) Lands in the first *dongar* class were rated under the maximum rate of the group in which they were placed.

(2) Lands in the second *dongar* class were rated at the maximum of the next lowest group.

(3) Lands in the third *dongar* class were rated at the maximum of the still lower group.†

GARDEN.

Garden lands are divided into two classes, *viz.*, *Motasthal* and *Pátasthal.*

MOTASTHAL.

The classification system applied in the case of *motasthal* lands is very complicated and varied considerably at different times. For this reason it will be necessary to consider the Deccan and Southern Maratha systems separately.

* Paragraph 15 of Mr. Ozanne's Report.
† Paragraph 9 of the same report.

(1) *The Deccan System.*

The Deccan system falls into two parts, *viz.*, firstly, that employed in the Revision Surveys previous to 1877, and secondly, that introduced after that date. The innovations made after that year were due to the amalgamation of the Deccan and Southern Maratha Surveys under the sole charge of Colonel Anderson

Previous to 1877.

In Poona, Ahmednagar and Sholapur -In accordance with the orders of Government that wells constructed since the Original Settlement were to be assessed as Dry-crop, the special system of *motasthal* classification in the Poona and Sholapur districts was applied to land under Old or "assessed" wells only, *i.e.*, those which had been assessed at the Original Settlement Land under "New" wells, *i.e.*, those which had been constructed after the declaration of the Original Settlement, were assessed as ordinary Dry-crop. In Ahmednagar, however, the same system of classification was employed in the case of New as well as of Old wells This system was briefly as follows :—

(*i*) In the case of a survey number the whole of which was irrigated, the soil classification was done in the ordinary way according to the *jirayat* scale. Then in the office the classification annas of each classification "*hissa*" were increased by 25 per cent. and the increased classification worked out accordingly. The effect of this addition was to raise the classification value, and therefore the assessment by 25 per cent. above that of the ordinary Dry-crop assessment when the Dry-crop *jantri* was applied.

(*ii*) In the case of a survey number only partially irrigated, the classer, at the time of doing the soil classification, marked out the field into separate *jirayat* and *bagayat hissas*. The 25 per cent. addition was then made to the *bagayat hissas* only, and the increase in the classification distributed over the whole field.

According to this system, it will be seen, there was no separate *bagayat rating*. The fact that a field was wholly or partially irrigated was treated as an "advantage" over

the ordinary Dry-crop and the soil classification raised, therefore, to allow for it on the same principle as those followed in the case of "*nala chad*" and "alluvial *chad*" previously described. (*Vide* pp. 263, 265.)

(*iii*) At the same time, though there was no separate *bagayat* rating and *motasthal* land was really treated as a superior Dry-crop, it was considered as a separate class of land and entered as such in the Survey Records. For this purpose it was necessary to discover its area. This was done, not by measurement, but "*hissavar*" on the system previously described in the case of *kharab*; *e.g.*, if the total area of the field were 5 acres, then the aréa of each of the five classification *hissas* would be approximately 1 acre, and if two of these were *bagayat hissas*, the area of the *bagayat* would be 2 acres.

In Nasik.—In the Nasik district the system in essence was the same. Instead, however, of adding 25 per cent to the soil classification annas in respect of the *bagayat* area the additions were made according to the two scales given below, the first of which was employed in the case of the Chandvad and Niphad talukas, and the latter for the Sinnar, Nandgaon, Yeola and Nasik talukas –

Scale 1.

Soil annas.	Addition
16	*Nil*
14	2
12–8	4
6–4	2
below 4	*Nil*

Scale 2.

According to this scale an addition of 4 annas was made to *every* class of soil, from the 1st to the 7th class, no addition being made below that class.

In Satara.—In the Satara district a different system was in vogue, by which the *jirayat* and *bagayat* areas were separately measured and classed—both according to the Dry-crop scale—and the *bagayat* area assessed by means of a separate maximum rate.

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The Deccan system falls into two parts, *viz.*, firstly, that employed in the Revision Surveys previous to 1877, and secondly, that introduced after that date. The innovations made after that year were due to the amalgamation of the Deccan and Southern Maratha Surveys under the sole charge of Colonel Anderson

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According to this system, it will be seen, there was no separate *bagayat rating*. The fact that a field was wholly or partially irrigated was treated as an "advantage" over

the ordinary Dry-crop and the soil classification raised, therefore, to allow for it on the same principle as those followed in the case of "*nala chad*" and "alluvial *chad*" previously described. (*Vide* pp. 263, 265.)

(*iii*) At the same time, though there was no separate *bagayat* rating and *motasthal* land was really treated as a superior Dry-crop, it was considered as a separate class of land and entered as such in the Survey Records. For this purpose it was necessary to discover its area. This was done, not by measurement, but "*hissavar*" on the system previously described in the case of *kharab*; *e.g.*, if the total area of the field were 5 acres, then the aréa of each of the five classification *hissas* would be approximately 1 acre, and if two of these were *bagayat hissas*, the area of the *bagayat* would be 2 acres.

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16	*Nil*
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According to this scale an addition of 4 annas was made to *every* class of soil, from the 1st to the 7th class, no addition being made below that class.

In Satara.—In the Satara district a different system was in vogue, by which the *jirayat* and *bagayat* areas were separately measured and classed—both according to the Dry-crop scale—and the *bagayat* area assessed by means of a separate maximum rate.

After 1877.

Under Colonel Anderson the system of *motasthal* classification was completely changed. The innovations made referred, not merely to the methods of classification, but also to the system of calculating the irrigated area.

(*a*) *The Method of Classification.*

Under Colonel Anderson wells were divided into three classes, called 1st, 2nd and 3rd class wells. Of these—

1*st class* wells were those situated within two chains of a large Government tank, canal or other irrigation work, from which their water supply was derived by percolation.

2*nd class* wells were those situated over two but five chains of a similar work

3*rd class* wells were all other wells, wherever situ

The first two classes were really *semi-pátasthal*, a supply came from an external source. The system of cation employed in the case of these two classes d therefore, from that used in the case of 3rd class wells.

A.—1*st and* 2*nd class wells.*—In accordance with the of Government of exempting improvements from ta a differentiation was made in the classification system ad in the case of those constructed after the Original Settlem called New, and those assessed at the Original Settlem called Old wells, as follows :—

New wells.—The soil classification of the irrigable area was done in the ordinary way. Then in the office additions w made to the soil annas in accordance with the follow "A table" scale :—

A table.

Soil annas.				1st class well	2nd class well.
as.	p.	as	p.	as.	as.
16	0	10	1	6	4
10	0.	7	1	5	3
7	0	4	1	4	2

Old wells.—The necessary differentiation between Old and New wells was made by adding to the soil classification of the former a special increase called " B table chad " in addition to that given by A table. This increase was added, before giving the A table increase, according to the scale shewn below, with, however, the proviso that the soil classification must not thereby be raised above 18 annas :—

B table.

	Soil classification					Increase.
	as.	p.		as.	p.	as.
In	16	0	to	10	1	4
and	10	0	,,	7	1	3
bagay	[illegible]	0	,,	4	1	2

In N the san the soil classification of the field were 15 annas the soil clas of the full 4 annas would raise it to 19 ; hence the tions w ddition made was only 3 annas which would bring the the first the maximum allowable of 18 annas.
and Nij is total was added the increase made according to
Yeola for the advantage of percolation.

3rd class wells —Under this head also Old and New wells reated differently as follows :—

wells.—In this case the soil classification was raised by ddition of " B table chad " as described above, though, urse, without the addition of " A table chad ".

w wells.—An addition was made to the soil annas of the ble area by the following scale which was divided into classes in accordance with the depth of the water the surface or the crop grown. The addition so made technically called " Position class ".

Position class scale.

A
ove

	Soil classification				1st Position class		2nd Position class.	
	as	p		as.	as.	p	as.	p.
From	16	0	to	8	2	0	1	0
,,	7	11	,,	6	1	6	0	9
,,	5	11	,,	4	1	0	0	6
Below 4 annas					*Nil*		*Nil*	

First and second "Position" were assigned as follows:—

1st Position.—To all land under sugarcane (grown quadrennially or triennially).

To other well-watered lands when the depth of the water from the surface was within 12 yards.

2nd Position.—When the depth from the surface was between 12 and within 18 yards.

above 18 yards no Position class was assigned and the well was left unassessed.

As has been noted on p. 267, with the view of making some slight addition to the assessment of lands which, though not actually irrigated were yet obviously capable of being irrigated were a well to be sunk, and hence possessed an "advantage" over the ordinary Dry-crop lands, "Position class" was ordered to be assigned to Dry-crop land in the following cases.—

1st Position—Where springs breaking out on the surface shew that water could be reached within a short distance

2nd Position—To lands situated within 10 chains of an existing well, from the level appearing capable of being irrigated were a well to be sunk.

Satara and Khandesh.—In the districts of Satara and Khandesh, however, this "Position class" was not applied. For it was substituted the "General Position class" described on p. 267, which, by taking into account the natural access to sub-soil water due to drainage from higher grounds, treated the possession of sub-soil water advantages on the same principles as those adopted in Gujarat (for which *vide* p. 304) and so did away with the necessity of the special system of well assessment employed in the rest of the Deccan districts.

(b) *The Calculation of the Irrigable Area.*

Under the old system the irrigable area had been calculated roughly by the "*hissavar*" method. Under Colonel Anderson's system, however, an attempt was made to arrive at this area more accurately by the following methods:—

(a) The area under command of the well, *i.e.*, that area which, looking to the level of the ground and the capacity

of the well itself, could be considered capable of irrigation, was divided into two parts, *viz.*, Permanent (Sálosál) Bagayat and Pherpali or Rotation Bagayat. Of these, Permanent Bagayat was that area which was annually irrigated—which in practice would seem to have been fixed at the area actually irrigated in the year of settlement; while Pherpali was that area which was irrigated only occasionally according to the season. The extent of this latter area could only be estimated roughly after inquiries of the cultivators, examination of the crop registers and by looking to the capacity of the well, etc.

(*b*) The area of Permanent Motasthal was measured on the ground by the classer and that of Pherpali estimated by him.

(*c*) The area to be classed as Bagayat was then fixed as the Permanent area *plus* a share of the Pherpali which was not to exceed ⅓ of the Permanent area and ½ of the Pherpali, whichever was less.

(*d*) The remainder of the Pherpali area was then added to the Dry-crop

To give a simple example of this process. Suppose a survey number, the respective areas of the Dry-crop, Permanent Bagayat and Pherpali within which were fixed by the classer as follows :—

Dry-crop	Permanent bagayat	Pherpali
5 acres.	3 acres.	30 gunthas.

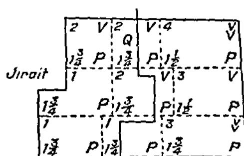
Then ⅓ of the Permanent Bagayat is 1 acre and ½ of the Pherpali is 15 gunthas The latter area being the less is added to the Permanent Bagayat, which, therefore, becomes 3 acres 15 gunthas, and the remaining 15 gunthas are added to the Dry-crop which becomes 5 acres 15 gunthas

It will be seen that according to this system of calculation the Bagayat area within such a survey number is not a fixed, but, what may be called a "floating" area, comprising the average area which may be expected to be irrigated from the particular well.

Below is given an example (No. 5) of the classification syste described above in the case of a mixed number of Motasthal a Dry-crop land.

EXAMPLE No. 5.

Mixed Motasthal and Dry-crop.



Jirayat.

Class.	Shares.	Ann as.
1	2¼	36
2	2¼	31
Total ..	4½	67

Kayam bhag annas. 15

Motasthal.

Class.	Shares.	as.
1	¾	12
2	¾	10
3	2	24
4	1	10
Total ..	4½	56

Kayam bhag annas 12

Area (by measurement)—

Bagayat 8 acres { *Permanent 1 acre.* / *Pherpali 7 acres.*

Dry-crop 10 acres.

Area (as finally settled)—

	A.	g.
Bagayat Permanent ..	1	0
Add—⅓ from Pherpali	0	13
Total Permanent ..	1	13

	A. g.	Soil Classification.	Reduc valu Rs. a
Dry-crop ..	10 0	15 0	9
Add remainder Pherpali ..	6 27	12 6	5
Total ..	16 27	....	14
Average bhag annas of Dry-crop ..			14

EXPLANATION.

The explanation of the somewhat elaborate calculations which appear above is as follows :—

(i) The otted line shews the boundary between the Dry-crop and Motasthal land, the area of the former being 10 acres and of the latter 8 acres.

(ii) The soil classification value of both is first worked out in the ordinary way, as shewn.

(iii) The total Motasthal area of 8 acres, however, includes [illegible] *acre) and the Pherpali (7 acres).* [illegible] *n area of not more than ⅓ of the* [illegible] *has is transferred to it from the Pherpali, making the total area of Permanent Bagayat 1 acre 13 gunthas.*

(iv) The remainder of the Pherpali (6 acres 27 gunthas) has now to be transferred to Dry-crop The classification values of the original Dry-crop and of the Pherpali transferred are not, however, the same, and, for assessment purposes, it is necessary to reduce them to one and the same measure, as the same maximum rate has to be applied to their combined annas. This done, as shewn above, by finding out the assessment of both the Dry-crop and the Pherpali according to their own classification at a maximum rate of Re. 1, i.e., by multiplying the Dry-crop area by and the Pherpali by [illegible] *and dividing the total assessment so found by the total areas of the two classes of land combined, which gives the average classification value of the whole—in this case 14 annas.*

In order to find out the assessment, it may be noted, as the well [illegible] *annas* [illegible] *which* [illegible] *of the Motasthal area are 12-6 the additions to be made are :—*

On account of A table	..	*6 annas.*
,, B ,,	..	*4 ,,*
		Rs. a. p.
bringing the total classification value to	..	*1 6 6*

(ii) The Southern Maratha Country System.

Different systems were adopted in each of the Belgaum, Dharwar and Bijapur districts.

Belgaum.

In this district the land under *all* wells, both 1st, 2nd and 3rd class, were classed in the same way, *i.e.*, by the addition of "position class" to the soil annas according to the scale already

given (*vide* p. 279). The difference between the three classes was made at the time of calculating the assessment, for which see Chapter IX, p. 397. Nor was any difference made between old and new Bagayat which was assessed at exactly the same rates.

Dharwar.

1st and 2nd class wells.

Land under these classes of wells, of which there are very few, were classed as Dry-crop, the difference in value being allowed for in calculating the assessment (*vide* Chapter IX, p. 397).

3rd class wells.

Old wells.—Lands under such wells were given "Position class" in accordance with the ordinary rules.

New wells.—The land was classed as ordinary Dry-crop without any addition to the classification.

Bijapur.

In this district two systems of classification were employed :—

(*i*) T [illegible]

(*ii*) [illegible]

A and [illegible]

PA'TASTHAL.

As has been explained in Part I (*vide* p. 93) the rating of Pátasthal land was far more of an individual and less of a mechanical matter than was the case with other classes of land. The assessments of the land under each *pát* were fixed by the Superintendent personally on the spot after a careful consideration of a variety of circumstances bearing upon the question of what a suitable rate should be. In fact, apart from the classification of the soil, which was done according to the ordinary soil scale, the "classification" of Pátasthal land was really a process of collecting information from which the Superintendent could come to a conclusion as to the proper rate of assessment. The information so gathered by the classer was embodied in the Pátasthal Takta—or Pátasthal Register—and used by the Superintendent for the purpose of assessment.

The main heads under which information of this character was usually gathered were the following :—

1. The nature of the crops grown.
2. [illegible] er-supply.
3. [illegible]
4. [illegible]

5. The cost of constructing the *pát*, and whether it was *pakka* or *kacha*.
6. The presence or absence of well assistance and the class of the well.

Of these 6 main heads the two which call for attention here are 2 and 3; *viz.*, the character of the water-supply and the area irrigable.

The system of dealing with these two subjects differed considerably, not only in different districts, but also at different times within the same district. It will, therefore, be necessary to deal separately, first with the systems employed in the Deccan exclusive of Khandesh, then with that of the Khandesh district, and lastly with that of the Southern Maratha Survey. In doing so it will be convenient to describe the Deccan system first as a whole, and then to note the variations from this system exhibited by those of the other districts.

(1) *The Deccan System.*

(*a*) *The Pátasthal water-supply.*—The chief point to which attention was directed was the duration of the supply, since the character of the crops grown depends mainly upon this factor. For this purpose, therefore, the water-supply of Pátasthal lands was divided into a certain number of classes accordingly. As in the case of Motasthal, there is a difference in the system of division adopted before and after 1877.

Before 1877.

There were 6 water classes as follows :—

Class.	Description.
1 ..	Water carried by a *pát* from a *pakka* built *bandhara* in good repair and affording a perennial supply of water.
2 ..	Water-supply perennial, but decreasing in quantity during the hot months of April and May
3 ..	Water-supply lasting throughout the year, except in bad seasons when there is a total failure for about a month or two. Sugarcane customarily grown.
4 ..	*Pát* affords water-supply until the 15th March and does not therefore suffice for sugarcane, but is sufficient to grow [illegible]
5 ..	*P*[illegible] 1st or 15th February and [illegible] wheat, but is sufficient to raise a second crop of chillies, onions, carrots, etc.
6 ..	*Pát* affords water-supply annually during the months of November and December.

A reduction of one class was made—

(*a*) in the case of the 4th and 5th classes when the area was larger than could be properly irrigated;

(*b*) when the irrigated lands were at a distance from the source of water-supply.

After 1877.

Under Colonel Anderson the water classes were revised as follows :—

Class.	Duration of flow	Crops culturable.
1	Perennial ..	Superior kinds of garden produce, such as sugarcane, with a triennial or quadrennial rotation of oranges, figs, grapes, plantains, limes sweet or sour, or *pancel*, without any fear of deficiency of water.
2	Till end of April	Same kinds as above, as also guavas, pomegranates and ginger, but owing to insufficiency of water-supply the produce is inferior to that of the 1st class.
3	Till 15th of March .	Two good garden crops, such as chillies, potatoes, *ratali* or *bajri*, with an after-crop of wheat or vegetables, or one good garden crop of turmeric.
4	Till the 1st February	One good garden crop, such as *bhuimug*, or two inferior ones, such as *bajri*, Indian corn, *tori* or *mug*, with an after-crop of gram, *vatana*, *masur*, coriander, *methi*, lucern or vegetables.
5	Till the 1st December	One good garden crop, such as chillies, rice or vegetables.
6	Till the 1st November	One inferior crop of rice, or any other ordinary crop aided by a *pát*.

(*b*) *The determination of the irrigable area.*—Previous to 1877 the irrigable area was determined in some cases by the "*Hissawar*" system and in others by an approximate measurement. After that year, however, the "Pherpali" system previously described under the head of Motasthal (*vide*, p. 281) was introduced. In its main details the system applied to Pátasthal lands was exactly the same as that for Motasthal, and it need not, therefore, be described again. Owing, however, to the greater complexity of the Pátasthal system of irrigation the determination of the area which should be taken as irrigable was a far more delicate matter than in the case of Motasthal. The principles in accordance with which this should be done are clearly explained in Mr. Fletcher's *memorandum* on the "rating of Pátasthal" [printed as Appendix VII (*a*)] under the head of "Area", to which the reader is, therefore, referred for further information on the subject.

An illustration of Pátasthal classification is given in Example No. 6.

EXAMPLE No. 6.

Mixed Dry-crop and Pátasthal.

Potas thal. Dry Crop

7 5 | 7 5 | 2 V
1/2 D | 1/2 D | 1¾ P
6 5 | 3 V
¾ D | 1½ P
5 V | 4 V
1 P | 1¼ P

Dry-crop.

Class.	Shares.	annas.
2	1	14
3	1	12
4	1	10
5	1	8
Total..	4	44

	as.	p.
Kayam bhag annas ..	11	0

Pátasthal.

Water Class.

Class	Shares.	Annas
5	3	15

Average Water Class.. 5

Soil.

Class.	Shares.	Annas.
6	1	6
7	2	9
Total	3	15

	as.	p.
Kayam bhag annas ..	5	0

Area (by measurement)—

	A.	g.		A.	g.
Bagayat ..	4	27	*Permanent*	0	21
			Pherpali	4	6
Dry-crop.	7	30			

Area (as finally settled)—

	A.	g.
Bagayat .. *Permanent* ..	0	21
Add ⅓ from Pherpali	0	7
Total Permanent .	0	28

	A. g.	*Soil classification* As.	*Reduced value.* Rs. a.
Dry-crop ..	7 30	11	5 5
Add remainder Pherpali ..	3 39	5	1 4
Total .	11 29	..	6 9

	As.
Average bhag annas of Dry-crop ..	9

EXPLANATION.

The calculation of the classification values and areas was done in exactly the same way as that described in Example No. 5 for Motasthal.

(2) *The Khandesh System.*

As has previously been shewn the irrigational system of Pátasthal lands in Khandesh differs in certain ways from that of the rest of the Deccan. So also does the system of classification applied in these districts, which was devised by Mr. Pedder. This was the case, not only with respect to the methods employed of ascertaining the irrigable area, but also regarding the soil classification and the division of the water-supply into classes.

(*a*) *The soil classification.*—In Khandesh, while the actual field classification was done according to the ordinary soil scale, only three classes of soil were recognized for the purposes of Pátasthal classification, *viz.*—

Class 1 comprising the first three classes of the soil scale.
" 2 comprising next two classes of the soil scale.
" 3 comprising the remaining classes of the soil scale.

(*b*) *The Water classes.*—As with the soil classification, so in the case of the water-supply three classes were arranged. They were not, however, as in the Deccan, based on any particular duration of the supply, but were settled individually for each *pát*, the rules stating that "the best water-supply under each *bandhara* is to be put in the 1st class of water supply, no matter how inferior that supply may be to that from another *bandhara*, even in the same village, and that the Superintendent will meet the difference in the rates". According to the rules, therefore, all fields were put into the 1st class, except those in which the water-supply was deficient, which were placed in the 2nd or 3rd classes according to the extent of the deficiency. It must, however, be noticed—

(*a*) that lands with the help of a well in addition to the *pát* were invariably put into the 1st class;

(*b*) that conversely, where it was necessary to use a *bhudki* to lift the water from the *pát* the supply was reduced to 2nd or 3rd class.

(*c*) *The determination of the irrigable area.*—In the Khandesh districts the elaborate Pherpali system of calculating the irrigable area was not introduced. Owing to the Phad system of cultivation (*vide* Part I, p. 92) the areas actually irrigated were found to be very clearly defined. Within every survey number, therefore, all the *Pátasthal* land was divided up into *pôt* numbers in accordance with occupation, thus making the Pátasthal area in Khandesh a fixed and not a floating area as it is in the Deccan.

(3) *The Southern Maratha Country System.*

The Southern Maratha system, in so far as the determination of the irrigable area and the method of assessment are concerned, is the same as that of the Deccan. The principle of division into water classes, however, differs considerably. The Pátasthal water classes of the Southern Maratha system are the same as those for Rice lands, which in this part of the Presidency partake rather of the nature of Garden land than of ordinary Rice. The rules for the water classification of Rice lands are given in paragraph 13 of section XII of Wingate's Survey Rules of 1853, and by paragraph 18 of this section it is ordered that "the supply of water to purely Pátasthal Bagayat should be classed in the same manner as if the field were cultivated with rice and supplied with water by *a pát*; but care must be taken that the 6th class is never entered for garden cultivation, because it does not relate to water conveyed by a *pát*". To which it may be added that neither do some of the sub-classes of the higher classes of water-supply. In the following table, therefore, only those water classes are given which relate properly to Pátasthal irrigation. A necessary change also is made by the substitution of the words "garden crop" for "rice" whenever the latter word appears.—

Class.	Sub-class.	Source of supply.	Duration of supply.	Situation of land.	Crops grown.
1	..	By *pat* from a good tank, river or *nala*	Till end of March or April	Low lying	Better class of sugarcane every second or third year
2	.	Do	Do	Rather elevated with less moisture.	A second rate crop of sugarcane with certainty.
3	1	Do .	Do.	Elevated	Sugarcane cultivable only when rains very favourable.
	2	Do .	Till end of December or January	Low-lying .	
4	.	Do		Elevated ..	(A garden) and after-green crop in one season.
5.	1	Do ..	. .	Very high..	No after-crop possible.
	2	Small tanks		....	

Faults.

1st order of soil.—To be reduced to 2nd when large admixture of sand, unless *alluvial* when to be retained as 1st class.

2nd order of soil.—This order is cut up by fissures in the hot weather. When fissures are large, to be reduced to 3rd class, unless soil is black and second crop grown when it should be kept as 2nd.

Both these faults were denominated by one sign, *viz.*, ∨ or that used for *walsar*.

Water.

Class.	Anna value	Description.
1	10 .	When the water-supply is from surface springs, or received by *pát* from a *nala*, or from there being moisture in the soil, owing to which *jirvel*, *ambe mohor*, or some other superior kind of rice is grown, which is cut in November and a good yield annually is a certainty. Sugarcane can also be grown.
2	8 .	(*a*) As above, but the moisture is so great as to injure the crop. (*b*) When the description of rice grown is the same as that stated above, but in seasons of bad rainfall the yield is not good.
3	6 ..	When the rice grown is not of a superior kind but middling, such as *halva*, *ambe mohor*, etc., which is cut during December and November and when, even though the rainfall be scanty, the yield is good.
4	4 ..	When the ordinary class of rice grown is of a coarser kind which is cut in October, though the yield is good even in years of scanty rainfall.
5	2 ..	Rice grown same as class 4, but the crop uncertain owing to lack of moisture.
6	..	Land elevated and wholly dependent upon the rainfall to grow *take kudai* or other inferior kinds of rice.

(*Vide* Example No. 7.)

EXAMPLE No. 7.

Old Rice (Deshi system).

Water annas

6

4 - Soil annas

Depth 1

6

1 6

6

1 4

Class.	Shares.	Annas.
10	2	20
12	1	12
Total ..	3	32

	as.	p.
Average bhag annas ..	10	8
Kayam bhag annas ..	10	6

EXPLANATION.

Under the Deshi system of rice classification the soil and water annas were added together to form the " class ". Neither the order of soil nor the faults, if any, were shewn in the classification tippan.

(3) *The Dharwar System.*

(i) *In the Southern Maratha Country.*

The origin of this system has been explained in Part I (*vide* p. 96) Two factors of value were taken into account, *viz*, Soil and Water.

(*a*) *Soil.*—This was classed according to the ordinary soil scale of 16 annas (*vide* p. 256).

(*b*) *Water.*—As in the case of Pátasthal, the different degrees of water-supply were divided into 6 classes as under :—

Class.	Description.
1	.. A perennial supply from a tank or stream, admitting of the better kinds of sugarcane being grown every second or third year
2	.. Supply from the same source as above, but not so good, admitting a second rate crop of sugarcane,

Class	Description.
3	.. (a) Supply of water the same sources as in 1st and 2nd classes, but from land being situated high, or fro[illegible] water failing at the end of December or Januar[illegible] sugarcane can only be grown when the rains are ver[illegible] favourable.
	(b) When water is not derived from a tank or strea[illegible] but in consequence of the land being in a lo[illegible] situation sugarcane can be grown when the rains a[illegible] favourable
4	. When there is not a supply of water, or advantages o[illegible] situation admitting of sugarcane being grown, but th[illegible] supply of moisture is sufficient to admit of a rice an[illegible] after-grain crop being grown in one season; or, if a[illegible] after-grain crop cannot, from some defect in th[illegible] soil, be grown, yet the moisture suffices to produc[illegible] an excellent rice crop.
5	.. Supply same as in preceding class, but no after-crop can b[illegible] [illegible] middling rice crop.
6	.. Water-supply derived from pure rainfall.

Intermediate or half classes occur from striking the average of water classification in the several "shares" or portions of a field separately classed, in order to obtain the water classification average for the whole field or the whole rice land in a field.

With reference to these water classes Colonel Anderson remarks: "The two highest classes, and even the 3rd class also, contemplate something better than what might be called mere rice land. In fact, the greater part of the sugarcane grown in the Dharwar Collectorate is grown in what is ordinarily called rice land, being cultivated with rice followed by an after-crop two years out of three, and in the third year with sugarcane. It is not till we come to the 4th and 5th classes of water that pure rice land in the ordinary acceptation of the term is met with."*

* Paragraph 54 of Colonel Anderson's Report No. 7 of 4th January 1876 on the Old Bankapur Taluka, page 24 of Selection No. CLV, New Series.

It will be seen that, in the Example (No. 8), the average water class has been worked out for the whole field in the same way as if the figures of the water-class were annas; and in fact for this purpose they were treated as such and the average taken to the nearest 6 pies according to the following *dharsod* scale :—

EXAMPLE NO. 8.

Old Rice (Dharwar system).

6 5 3 4 D 1 D

Soil.

	Class.	*Shares.*	*annas.*
	5	*1*	*8*
	6	*1*	*6*
Total ..		*2*	*14*

Average bhag annas .. *7-0.*

Water class.

	3	*1*	*3*
	4	*1*	*4*
Total ..		*2*	*7*

Average water class .. *3-6.*

U
anne
soil

Water Class (Dharsod Scale).

From	To	Annas to be confirmed.
as. p.	as. p.	as. p.
1 0	1 2	1 0
1 3	1 8	1 6
1 9	2 2	2 0
2 3	2 8	2 6
2 9	3 2	3 0
3 3	3 8	3 6
3 9	4 2	4 0
4 3	4 8	4 6
4 9	5 2	5 0
5 3	5 8	5 6
5 9	6 0	6 0

(ii) *In the Deccan.*

The Dharwar system was introduced into the Deccan Survey by Colonel Anderson about the year 1877, after which it was universally employed for the classification of rice lands. The only change made was that in 1886 the following revised scale for soil was introduced as it was found that a depth of 1¼ *haths* was quite sufficient for growing the best kind of rice.—

Class	Bhag anna	Description of soil.		
		A mixture of red and black or black and yellow.	A mixture of red and yellow.	Red, but mixed with gravel.
		Depth in haths.		
1	16	1¼	....	....
2	14	1	....	
3	12	¾	....	
4	10	½	....	
5	8	¼	....	

The scale of water classes used was the same, bu the fact that rice lands in the Deccan are depende water-supply upon the rainfall entirely, and do n sugarcane like those of the Southern Maratha Co coming under the first three water classes was r and these classes were, therefore, not used in pract the scale practically began at the 4th water cla

(d) *The Satara System.*

(*a*) *Soil.*—Previous to the year 1872 the ordinary with a maximum depth of 1¾ *haths* was employe that year, however, the revised scale of 1¼ *haths* was int

(*b*) *Water.*—The system of water classes used in the Survey was that of the Kolhapur Hill Rules. Accor this system there were four water classes as follows

Source of supply.	Crops grown
A *pát*	.. Sugarcane, or *duphasal* i.e., a first crop of r rice with an after-crop of

Class.	Sub-class.	Source of supply.	Crops grown.
2	..	A *pát* .	A first crop of transplanted rice, followed by an after-crop of wheat, gram or peas.
3	1	Do. ..	One crop of transplanted rice.
..	2	Do .	A first crop of drilled rice, followed by an after-crop of wheat, gram or peas.
4	..	Do. ..	One crop of drilled rice.

A reduction of a whole or half class was made if, on account of the land being elevated, there was not always a certainty of the crop being a good one.

(*B*) *New Rice.*

(*a*) *The Deccan.*

fication system applied to New Rice lands differed extent in every district of the Deccan.

Poona, Ahmednagar and Sholapur.

ose talukas or parts of talukas where the *Deshi* ice classification had been adopted at the Original w Rice land was classed and assessed exactly as Revision.

e the Dharwar system had been employed New assed and assessed in two different ways :—

F *parts of Junnar and Purandhar.*—In these talukas ankapur" system of Colonel Anderson was applied, as h New Rice was classed as Old Rice on the principles explained in Part I (*vide* p. 153).

In Khed, Haveli, Maval and the rest of Purandhar of a and in Sholapur and Ahmednagar generally a rent system was introduced. Under this system the ie area of the Rice land in each field was measured and sed together according to the rules of the Dharwar system (e p. 293). The area of New Rice was then found by ducting the area of the Old Rice from the total. This ew Rice area was then assessed as follows :—

The water class was first turned into annas according to the following scale :—

Scale for deducing Water Class Annas.

Classification bhag annas.				Water Class.					
				1-0	2-0	2-6	3-0	3-6	4-0
1				2	3	4	5	6	7
as.	p.		as.	as. p	as. p.	as. p.	as. p.	as. p.	as. p.
16	0	to	15 ..	9 0	6 6	5 0	3 6	2 6	2 0
14	11	,,	14 .	8 6	6 0	5 0	3 6	2 6	2 0
13	11	,,	13 ..	8 0	6 0	4 6	3 0	2 6	2 0
12	11	,,	12 .	7 6	5 6	4 0	3 0	2 6	2 0
11	11	,,	11 .	7 0	5 0	4 0	2 6	1 6	1 6
10	11	,,	10 ..	6 0	4 6	3 6	2 0	1 6	1 6
9	11	,,	9 ..	5 0	4 0	3 0	2 0	1 6	1 0
8	11	,,	8 ..	4 6	3 0	2 6	2 0	1 6	1 0
7	11	,,	7 ..	4 0	3 0	2 6	2 0	1 6	1 0
6	11	,,	6 ..	3 6	2 6	2 0	1 6	1 6	1 0
5	11	,,	5 ..	3 0	2 0	2 0	1 6	1 0	0 6
4	11	,,	4 ..	2 0	1 6	1 6	1 0	1 0	0 6

The resultant annas were added to the Soil annas and the assessment was then worked out by the application of the Dry-crop rate by means of a special *jantri*.

By this system, therefore, New Rice land was treated as a superior Dry-crop with the addition of annas to the Soil annas in consideration of the "advantage" just as was done, as will be seen subsequently, in Gujarat.

Satara.

In Satara Old and New Rice in the same field were classed together, the area of New Rice found by deduction and then assessed by means of a special *jantri*.

Nasik.

In practically the whole of the Nasik district New Rice land was left untouched at Revision and remained unassessed, but in some parts of the Nasik and Dindori talukas a peculiar system of classification is found by which New Rice lands seem to have been divided into 8 classes in accordance with the depth of soil only—at any rate there is no trace of water classification—and an acre rate was then assigned to each of these 8 classes in accordance with two special *jantris*. The rules under which the classifications were done are not discoverable, but the area covered is small and the question is not of much importance.

(b) The Southern Maratha Country.

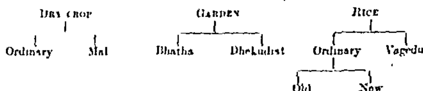
In the districts of Belgaum, Dharwar and Bijapur the Bankapur system (*vide* under "Poona") was employed.

CHAPTER IV.

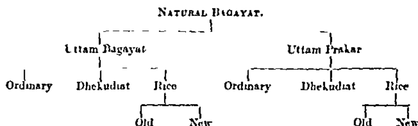
THE GUJARAT SYSTEM OF CLASSIFICATION.

The classes of land

THE ordinary Land Classes of the Gujarat Survey are the following:—



In addition, however, to these there is a separate class of land in the Surat district called "Natural Bagayat" which is divided into the following sub-classes:—



DRY-CROP.

(1) *Ordinary.*

The factors of value taken into account in the classification of the ordinary Dry-crop lands of Gujarat are two in number, *viz.*, Soil and Sub-soil water-supply.

(a) *The Soil Factor.*

The soils of Gujarat

In his *Land Revenue of Bombay* Mr. Rogers has the following remarks regarding the history of the Gujarat Soil Classification which are worthy of transcription:—"The soil of Gujarat being very unlike that of the Deccan and Southern Maratha Country, where the classers had been accustomed to work, it was found necessary to arrange a new system of classification. It may be said roughly that all the soil of the province is of alluvial or diluvial origin, there being rarely any rock from the wearing down of which soil could be formed. Its two main divisions are the black (*kali*) and the light coloured (*goradu* or *gorat*), the former having probably been formed in the estuaries of the great rivers running into

the Gulf of Cambay—the Tapti, the Narbada, the Mahi and the Sabarmati and the smaller streams—and the latter further inland and away from those estuaries; the former is diluvial, the latter alluvial. In the estimation of the people the light soil was, as a rule, the more valuable, and it is an undoubted fact that the parts of the country where it prevails shew more outward signs of prosperity than the black soil regions. On looking closely into the matter, however, it was evident that *this was to be attributed more chiefly to the greater industry*

and manure, although the former, when better tilled and manured, produced the more valuable crops. In the new classification scale accordingly black was reckoned the best or 16 annas soil, while *goradu* was put down as 12 or 14. A scale of faults, according to which the value of the soil deteriorated, was arranged, on the same principles as in the original method pursued elsewhere, but differing materially from those. Want of depth for instance, which counted for much in a rocky country like the Deccan, was practically never found in Gujarat; while in the latter an excess of sand tending to loosen the particles of soil too much, and impregnations with salt, were elements affecting the value of the soil unknown in the former country."

The Soil Scale

With the addition of a third order of inferior Soil called *maradi* or *goramti* the general Soil Classification scale, therefore, was as follows:—

Soil Scale.

Class.	Bhag annas	Soils of the		
		1st Order.	2nd Order.	3rd Order.
		Black soil or besar.	Goradu or sandy loam.	Goramti or yellowish inferior soil.
1	2	3	4	5
		Depth.	Depth.	Depth.
1	16	$1\frac{3}{4}$ cubits.	....	....
2	14	$1\frac{1}{2}$ "	$1\frac{3}{4}$ cubits.	....
3	12	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	....
4	10	1 cubit.	$1\frac{1}{4}$ "	....
5	8	$\frac{3}{4}$ "	1 cubit.	....
6	6	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1 cubit
7	$4\frac{1}{2}$	$\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "
8	3	....	$\frac{1}{4}$ "	$\frac{1}{2}$ "
9	2	....	....	$\frac{1}{4}$ "

Note.—By "Besar" in column 3 is meant a soil which is a mixture of *kali* and *goradu*.

Faults.

The "faults" recognized as deteriorating from the qualit of the soil were the following:—

Fault	Conventional mark	
Chunkhad	⁘	
Gochu	ˏ	For explanation, *vide* Deccan system (p. 257)
Utarvat	/	
Valsar	V	
Resvat	×	
Dhupan	˷˷˷˷˷˷˷˷	
Upalvat	▢	
Karal	Λ	
Khar	˥	= salt efflorescence or impregnation with salt

Scale increases

In the Gujarat Survey Scale increases to Soil annas were made in the Ahmadabad district only, and there not in the Prantij taluka. The increases made in the other talukas of that district were as follows:—

Taluka	Soil annas	Scale increase.
Daskroi	16 to 14-1	*Nil*
	14 to 13-0	1-0
	12-11 to 10	0-6
Remaining talukas	16 to 14-1	*Nil*
	14 to 12	1-6
	11-11 to 10	1-0
	9-11 to 8	0-6

These increases were made in the case of *gorat* (*i.e.*, 2nd order) soil only and not in that of black soil or *goramti*.

Variations in soil scale.

As, however, was the case in the Deccan, so in Gujarat soil scales slightly differing from the standard were employed in different districts and talukas even of the same district to meet varying needs. Thus, to give an example, in the case of the Kaira district, where, especially in the part known as the Charotar, the *goradu* is exceptionally rich and fertile, the

following more detailed scale was employed in all talukas except Matar :—

Kaira Scale.

Class.	Bhag annas.	Soils of the 1st Order — Black or besar.	Soils of the 2nd Order. — Goradu.
1	2	3	4
		Depth	Depth.
1	15	1¾	....
1½	15½		
2	15	1½	1¾
2½	13½		
3	12	1¼	1½
3½	10		
4	8	1	1¼
4½	7½		
5	7	¾	1
5½	6		
6	5	½	¾
6½	4½		
7	4	¼	½
7½	3½		
8	3	....	¼
8½	2½		
9	2	....	....

(b) *Sub-soil Water Factor.*

The history of the Sub-soil water assessment in Gujarat has been given in Part I, p. 143. It was there explained that, in accordance with the policy of Government of assessing, in the case of lands irrigable by the construction of wells, not the use but the capability of being used, the special taxation of existing

wells was abandoned at the Revision Survey and as a substitute was adopted the system of making a slight addition to the soil annas of all lands proved to possess a sub-soil water-supply that could be made available for the purposes of irrigation by the construction of a well.

These additions were made, by the method described below, in accordance with the following scale:

Sub-soil Water Scale.

Soil Annas.	Order 1			Order 2			Order 3			Order 4		
	Sweet throughout the year			Slightly brackish but drinkable			Brackish, undrinkable.			Brackish and undrinkable and becoming salt.		
	A	B	C	A	B	C	A	B	C	A	B	C
	10ft and less	Over 10 ft to 20 ft	Over 20 ft and under 40 ft	10ft and less	Over 10 ft to 20 ft	Over 20 ft and under 40 ft	10ft and less	Over 10 ft to 20 ft.	Over 20 ft and under 40 ft.	10ft. and less	Over 10 ft. to 20 ft.	Over 20 ft. and under 40 ft.
1	2	3	4	5	6	7	8	9	10	11	12	13
20 annas and over	6	5	4	5	4	3	4	3	2	1	·6	..
16 to 19-11	5	4	3	4	3	2	3	2	1-6	1	6	..
12 to 15-11	4	3	2	3-6	2-6	1-6	2	1-6	1	1	·6	..
8 to 11-11	3-6	2	1-6	2-6	1-6	1	1-6	1	·6	1	·6	..
5 to 7-11	2-6	1-6	1	1-6	1	·6	1	6	..	..	..	..

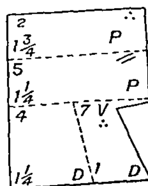
Notes.—
(i) The depths in columns 2–13 were reckoned from the ground to the surface of the water.
(ii) Order 4 was not applied in the case of Dry-crop lands, but to Rice lands only.
(iii) In case of—
(*a*) a rocky *substratum* or other obstacle to well construction,
(*b*) a deficiency in the water-supply,
the scale addition was diminished by half.

The method of applying the scale in actual practice was as follows. At the time of classifying the village lands the classer noted the depths of the water in all the actually existing wells, together with other evidence of the condition of the sub-soil supply. Then, by noting the relative positions of wells and the general lie of the land, he was able to lay down on the map areas within which the evidence shewed that the sub-soil

water-supply might reasonably be expected to be homogeneous, in respect both of the depth at which it might be tapped and also of the quality of the water. Thus, in one part of the village it might be sweet and obtainable at depths below 10 feet; in a neighbouring tract, slightly brackish and only at a depth of over 20 feet; yet again, there might be an area without wells at all and evidence that well-digging would be unprofitable. In the office the classer would make additions to the Soil annas of the survey numbers within the first two areas according to the scale: in the case of the first area from the figures given in column 2, and in the case of the second from column 7. The survey numbers in the third area would, of course, have no addition made at all. (*Vide* Example No. 9 below.)

EXAMPLE No. 9.

Dry-crop (with scale increase and sub-soil water).



Class	*Shares*	*Annas.*
2	*1*	*14*
4	*1*	*10*
5	*1*	*8*
7	*1*	*4-6*
Total ..	*4*	*36-6*

Average bhag annas	..	*9-0*
Add—scale increase	..	*1-0*
Total	..	*10-0*

Kayam bhag annas—

Soil ..	..	*10-0*
Sub-soil water (3rd class)	..	*0-6*

EXPLANATION.

The water in the well of the neighbouring survey number is brackish and undrinkable and at a depth of over 20 feet.

(2) *Mal.*

In the Kaira district—particularly in the talukas of Thasra, Kapadvanj and North-East Nadiad—there are large areas of almost uncultivable land called Mal. These "Mal" areas are

so-called, not from being composed of any particular kind of soil, since they comprise both *kali*, *besar* and *goradu*, but from possessing, at depths of from 18 inches to 5 feet, a cretaceous *substratum* of limestone which is impervious to water. The result is that, as the soil is without drainage, the first rains convert it into a quagmire of impassable mud; and when this has evaporated, as there is no sub-soil water-supply, it at once becomes hard and unploughable.

At the Revision Survey of the Kapadvanj taluka the Deputy Superintendent contended that the original classification of these lands had been wrongly done and urged that they ought to be re-classed according to a new scale. After a long technical discussion (for which *vide* the Kapadvanj Revision Settlement Report) it was finally decided that re-classification was both impossible and unnecessary; impossible because it was proved to be impracticable to distinguish Mal from ordinary soil by the processes of inspection and digging; and unnecessary, because the relative inferiority of the Mal tracts was shewn to have been fully recognized at the Original Settlement and to have been allowed for by keeping both the classification and the maximum rates low. It was, therefore, decided to let the original classification stand and to afford the necessary relief :—

(*a*) by not assessing these lands to sub-soil water advantage, and

(*b*) by adopting a continually decreasing distance from village scale in Mal villages.

The significance of (*b*) will be explained in the chapter upon the "Distance from Village scale". For the purposes of the present chapter it is only necessary to point to the fact that in the classification of these lands—

(*i*) the Soil element was classed according to the ordinary Soil scale, but at a low rate, i.e., by making large allowances for faults, etc.;

(*ii*) the classification of the sub-soil water element was omitted altogether.

Pot-kharab.

In the Gujarat, unlike the Deccan Survey, Pot-kharab were measured and not estimated. The measurements were only made roughly by taking out the lengths and breadths.

[illegible]

ments in the case of talukas the Original Settlements of which

had been made after 1854, the area of Pot-kharab fixed at the Original Settlements should be confirmed at Revision; and, as all Gujarat Original Settlements are subsequent to that date, the area of Pot-kharab is that measured at the Original Survey.

GARDEN

(1) *Bhatha.*

By "Bhatha" is meant the rich class of Garden land which is composed of the silt deposits left by the overflow of rivers and streams. This class of soil is itself of extraordinary fertility, and, situated as it is, it usually has also the great advantage of a sub-soil water-supply of sweet water obtainable at very short depths, often indeed by merely digging holes in the surface.

In the Gujarat Survey such lands were divided into three classes in accordance with varying degrees of permanency:—

Class.	Description
1	.. Land lying above high flood level, or lying sufficiently high to make it permanent and definable by permanent boundary marks.
2	.. Land so situated that, though it could not be defined by permanent marks yet was sufficiently [illegible] value.

The classification of these two classes was conducted as ollows:—

Soil.—This element was classed in accordance with the [illegible]

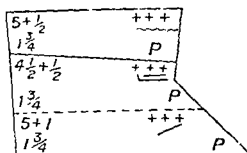
ach (called *gûns* or "advantages") which were added to the rdinary classification in the case of the higher qualities of Bhatha. Thus, if the depth of the soil to the *substratum* was ¼ cubits, but the soil was richer than ordinary, one *gûn* = annas or two *gûns* = 4 annas would be added to the classiication according to the soil scale of 12 annas, making it 14 or 6 annas respectively.

Water.—The scale employed was the ordinary Sub-soil ater scale already given (*vide* p. 304). But, in order that the

importance of the water advantage might have full weight, the scale annas were doubled. Thus, the water scale annas for sweet water obtainable between 10 and 20 feet for Dry-crop soil of between 20 and 16 annas in value are 4. In the case of Bhatha land of the same quality, however, they would be 8 ; and so on. (*Vide* Example No. 10.)

EXAMPLE No. 10.

Bhatha.



Class.	*Shares.*	*Annas.*
4½ + ½	*1*	*10*
5 + 1	*1*	*10*
5 + ½	*1*	*9*
Total ..	*3*	*29*

Average bhag annas .. 9-8
Kayan bhag annas .. 9-6
Sub-soil water annas .. 4-0

Depth to water 14 feet.

EXPLANATION.

The figures + ½ and + 1 mean that ½ gân = 1 anna or 1 gân = 2 annas are to be added to the ordinary soil classification annas.

The sub-soil annas in the case of ordinary Dry-crop for water at 14 feet on a Soil classification of 9 annas 6 pies would be 2 annas, but they are doubled for Bhatha land.

The difference between the two classes is to be found, not in the classification, but in that, while land of class 1 was divided into survey numbers in the oridinary way and defined by permanent boundary marks, that of the 2nd Class was not so defined but the area in occupation was measured up every year and assessment charged accordingly.

Class.	Description.
3	.. Land the soil of which is liable to be swept by floods or which is deposited fresh every year.

This class was called *Binakari* (unassessed) and was not classed at all, but sold annually by auction.

(2) *Dhekudiat.*

"Dhekudiat" is land watered or capable of being watered by means of a *dhekudi* or water-lift, either direct from the bed of a river or stream, or from a pit to which the water has been led from the stream by means of a channel. The history of Dhekudiat assessment has been given in Part I, pp. 90 and 146. It was there shewn that, owing to the difficulty experienced in devising any satisfactory method of assessing such lands in North Gujarat on account of the constant changes in the course of its streams, the special Dhekudiat assessment was abandoned in that district and lands irrigable by *dhekudis* treated as ordinary Dry-crop and assessed only to Soil and Sub-soil water advantages. These disadvantages were, however, shewn not to exist in the case of the Surat district as the course of its rivers and streams is of a permanent character and not liable to variation In this district, therefore, it was found possible to distinguish a separate class of Dhekudiat lands and to arrange a special system of classification.

For this purpose Dhekudiat land is defined as "all land irrigated or irrigable from a *dhekudi*, *pakka* (permanent) or *kacha* (temporary), on the bank of a stream which is not liable to change of course." In the case of lands not actually irrigated, the decision as to whether they were "irrigable" depended *upon such considerations as the presence of dhekudis in neighbouring* fields, the situation and general lie of the land, the condition of the bank as facilitating or hindering the construction of a *dhekudi*, and so on. Generally speaking, land situated more than 30 chains from the bank was not taken to be Dhekudiat owing to the difficulty of training the water to such a distance.

Land decided to be Dhekudiat was classed for Soil and Water elements as follows :—

Soil.—This was classed in accordance with the ordinary Dry-crop scale.

Water.—The main considerations in determining the relative grades of this factor were, firstly the depth from the bank to water level, and secondly the distance of the land irrigable

from the site of the *dhekudi*. The scale framed on these principles was as follows :—

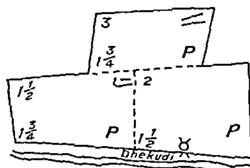
Dhekudiat Water Scale.

Soil annas	Distance of land from site of dhekudi	Depth of water in the dhekudi or to water level in the stream on 1st February.		
		Under 10 feet.	10 feet to under 25 feet.	25 feet to under 35 feet
		Annas	Annas.	Annas.
16 annas or over	Under 10 chains	16	12	8
	From 10 to under 20 chains	12	8	6
	From 20 chains or over	6	4	2
10 annas to under 16	Under 10 chains	12	9	6
	From 10 to under 20 chains	9	6	4-6
	From 20 chains and over	4-6	3	1-6
5 annas to under 10	Under 10 chains	9	6-6	4-6
	From 10 to under 20 chains	6-6	4-6	3
	From 20 chains and over	3	2	2

(*Vide* Example No 11 below.)

EXAMPLE NO. 11.

Dhekudiat.



Class	*Shares.*	*Annas.*
$1\frac{1}{2}$	1	15
2	1	14
3	1	12
Total ..	3	41

Average bhag annas. 13
Kayam Soil annas.. 16
Dhekudiat annas ..

Irrigable area within 15 chains. Depth to water 12 feet.

RICE.

The Rice lands of Gujarat are in general simply Dry-crop fields which, owing to their being situated on a lower level than the fields surrounding them, are enabled to catch and retain the moisture draining from the higher grounds. Generally speaking, the rainfall and drainage form their only sources of water-supply, in which case the Rice grown is known as "Akasia" Rice. These somewhat precarious sources of supply are occasionally supplemented, as in the case of Dry-crop lands growing Garden crops, by irrigation from wells, which is used to save the crop during unduly prolonged breaks in the monsoon In addition, however, to the rainfall and well irrigation there is, in a large number of cases, a third source, *i.e.*, from the numerous "tanks" which are scattered over the face of the country. These "tanks" vary in size from a small depression in the ground (*talavdi*), serving perhaps part of a small field with the water laid on by means of hand-scoops, up to the large Government reservoir (*talav*) with a scientifically arranged system of outlets and channels. The use of one and all, however, is the same—to supplement the rainfall in case of emergency. A supply of this kind is known by the technical term of "Himayat." This Himayat is of two kinds, *viz.*, first Kharif Himayat when the supply is used only for the purpose of cultivating the Rice crop, and Rabi Himayat when it is used for growing a second crop of *tal*, *dwela*, etc., after the rice crop. Very occasionally a supply of water is derived from rivers or streams in which case it is called "River Himayat." Sometimes, however, in the case of Rice lands possessing an exceptional amount of natural moisture it is possible to grow a second crop without tank or other irrigation. Such lands are called "Bheja Rice Lands," and this advantage was taken into account in the ordinary way by an addition to their soil value of 1 anna under the term "Dusota" (second crop). In the case of ordinary Rice lands, therefore, there are five factors of value taken into account in classification; *viz.*, Soil, Sub-soil water, Akasia, Himayat and Dusota.

The second class of Rice land—Vagedu Rice—is really only a variety of Ordinary Rice and is peculiar to the Kaira district.

from the site of the *dhekudi*. The scale framed on these principles was as follows :—

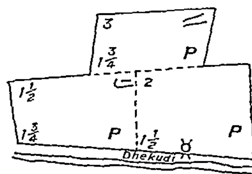
Dhekudiat Water Scale.

Soil annas.	Distance of land from site of dhekudi	Depth of water in the dhekudi or to water level in the stream on 1st February.		
		Under 10 feet	10 feet to under 25 feet.	25 feet to under 35 feet.
		Annas	Annas.	Annas.
16 annas or over	Under 10 chains ..	16	12	8
	From 10 to under 20 chains	12	8	6
	From 20 chains or over	6	4	2
10 annas to under 16 .	Under 10 chains	12	9	6
	From 10 to under 20 chains	9	6	4-6
	From 20 chains and over	4-6	3	1-6
5 annas to under 10	Under 10 chains ..	[illegible]	6-6	4-6
	From 10 to under 20 chains	6-6	4-6	3
	From 20 chains and over	3	2	2

(*Vide* Example No 11 below.)

EXAMPLE No. 11.

Dhekudiat.



Class.	*Shares.*	*Annas.*
1½	*1*	*15*
2	*1*	*14*
3	*1*	*12*
Total ..	*3*	*41*

Average bhag annas. *13*
Kayam Soil annas.. *12*
Dhekudiat annas .. [illegible]

Irrigable area within 15 chains. Depth to water 12 feet.

RICE.

The Rice lands of Gujarat are in general simply Dry-crop fields which, owing to their being situated on a lower level than the fields surrounding them, are enabled to catch and retain the moisture draining from the higher grounds. Generally speaking, the rainfall and drainage form their only sources of water-supply, in which case the Rice grown is known as "Akasia" Rice. These somewhat precarious sources of supply are occasionally supplemented, as in the case of Dry-crop lands growing Garden crops, by irrigation from wells, which is used to save the crop during unduly prolonged breaks in the monsoon In addition, however, to the rainfall and well irrigation there is, in a large number of cases, a third source, i e., from the numerous "tanks" which are scattered over the face of the country These "tanks" vary in size from a small depression in the ground (*talavdi*), serving perhaps part of a small field with the water laid on by means of hand-scoops, up to the large Government reservoir (*talav*) with a scientifically arranged system of outlets and channels. The use of one and all, however. is the same—to supplement the rainfall in case of emergency. A supply of this kind is known by the technical term of "Himayat." This Himayat is of two kinds; *viz.*, first Kharif Himayat when the supply is used only for the purpose of cultivating the Rice crop, and Rabi Himayat when it is used for growing a second crop of *val*, *divela*, etc. after the rice crop. Very occasionally a supply of water is derived from rivers or streams in which case it is called "River Himayat." Sometimes, however, in the case of Rice lands possessing an exceptional amount of natural moisture it is possible to grow a second crop without tank or other irrigation. Such lands are called "Bheja Rice Lands," and this advantage was taken into account in the ordinary way by an addition to their soil value of 1 anna under the term "Dusota" (second crop). In the case of ordinary Rice lands, therefore, there are five factors of value taken into account in classification; *viz.*, Soil, Sub-soil water, Akasia, Himayat and Dusota.

The second class of Rice land—Vagedu Rice—is really only a variety of Ordinary Rice and is peculiar to the Kaira district.

In such lands Rice is sown broadcast as a mixed crop with *kodra*, *tuver*, etc. The factors of value taken into account are Soil, Akasia and Himayat.

The third class is that of Natural Bagayat Rice which is described under the head of "Natural Bagayat" (*vide* p. 322).

A.—Old Rice

(1) *Ordinary Rice*

(*a*) *Soil.*—In speaking of the system of soil classification for Rice lands in 1894 the Deputy Superintendent, Gujarat Survey, remarks: "Rice being an aquatic plant is less particular as to the soil in which it grows than any *kharif* or *rabi* crop The deteriorating ingredients, which are recognized as faults in the classification of soils, have, therefore, considerably smaller allowance made for them in Rice than in Jirayat land classification, the main point to be looked to being the power of retention of water by the soil ", to which he might have added that the question of depth is also of considerably less importance than in the case of Jirayat classification. In fact, a depth of 1 *hath*, as against 1¼ *haths* in the Deccan, was found sufficient for the production of 1st class Rice and it is upon this as a maximum that the Gujarat soil scale is founded As for the question of faults referred to by the Deputy Superintendent, so little importance was attached to their deteriorating influence that only half a class reduction was allowed from the soil classification based upon depth, *however many faults might actually be present. This* general reduction was marked in the classification sketch by the conventional sign "△" (*tricona*), the particular fault or faults present being left unspecified.

Before, however, giving the actual scale, reference must be made to what, it must be admitted, seems undoubtedly a peculiar practice " of the Gujarat system of Rice soil classification. As will be seen from inspection of the scale it is based upon a *nominal* maximum of 8 annas classification for 1st class Rice soil of 1 *hath* in depth without faults. As a matter of fact, however, the *actual* maximum is 16 annas for 1st class

soil and the rest in proportion, for, before applying the nominal scale annas to the maximum rate, they were doubled. The reason given for this practice is "the acknowledged absence of need of too great differentiation in soil valuation in Rice land." But it is obvious that the "lack of differentiation" in the scale given is entirely nominal, since the doubling of the annas has exactly the same effect as if the scale had been framed *ab initio* upon a 16-anna basis. However this may be, it has to be recollected that the annas of the scale given below have to be doubled in order to discover their actual value.

Rice Soil Scale.

Class	Value in annas	Soils of the 1st Order. Black or Besar	Soils of the 2nd Order. Goradu.	Soils of the 3rd Order. Yellow or Whitish soil.
1	2	3	4	5
		Depth in haths	Depth in haths.	Depth in haths.
1	8	1	...	...
Δ	7		...	....
2	6	$\frac{3}{4}$	1	...
Δ	5		...	....
3	4	$\frac{1}{2}$	$\frac{3}{4}$	·1
Δ	3	.	.	....
4	2	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
Δ	1	..	....	....

(*b*) *Sub-soil Water.*—The scale used was the same as that for Dry-crop lands and was applied under the same rules (*vide* p. 304).

(c) *Akasia.*—Four classes of Akasia were recognized, on account of which an addition was made to the Soil annas as shewn :—

Class	Annas	Description.
1	8	.. Fields well embanked and the situation of which is such that the drainage from the higher ground is good, enabling the finest kinds of rice to be grown annually.
2	6	.. Fields well embanked, but having not such a good drainage from higher ground, yet will grow *sutarsal* rice without fail, and occasionally in good years the finer kinds of rice.
3	4	.. Fields getting some drainage from higher ground and, by means of good embankments, are fairly certain of being able to grow rice of an inferior variety annually.
4	2	. High-lying fields which have no drainage and which receive only the rain which actually falls on the surface, so that rice is only grown in good years.

(d) *Himayat.*

(1) *From tanks.*

(i) *For kharif crops.*—Four classes of Himayat were arranged as follows :—

Class	Annas	Description
1	8	.. Full assistance annually available by flow so long as water is required for the best kinds of rice.
2	7	.. As above, but irrigation partly by flow and partly by water-lift.
3	6	.. Supply of water more precarious, but lasting till about the 1st October and the finer qualities of rice cultivable.

Class.	Annas.	Description.
4	4	.. Water does not last till the beginning of October and the quality of rice usually grown is inferior.

Where it was found necessary to use lifts to raise the water to the required level a reduction of 2 annas per lift was made. Thus, in the case of the 4th class, if two lifts were used, the Himayat would be *nil.*

(*ii*) *For rabi crops.*—Four classes were arranged in this case also :—

Class.	Annas	Description
1	8	.. A certain and full supply by flow throughout the year
2	6	.. Supply certain only till about the 15th of March.
3	4	.. Supply certain only till about the 15th of February.
4	2	.. Supply ceasing before that date

Where the use of lifts was necessary a reduction was made of 2 annas per lift.

(2) *From rivers*

River Himayat was classed at 8 annas with a reduction of 2 annas per lift

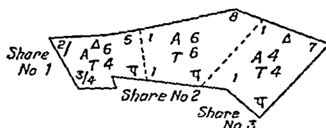
(*e*) *Dusota* —Where a second crop of *val, divela,* etc., was grown without tank or any other irrigation, an addition of two classes—called "*gûns*"—of 2 annas each was made if the second crop was taken annually. If grown less frequently, then the addition was one or half a "*gûn*", *i.e.*, 2 or 1 anna. If the soil was saltish, then the addition otherwise allowable was halved.

This addition was only made in tracts of heavy rainfall, damp climate and retentive soil. Further, it was nót applied at all where tank Himayat was assessed for *rabi* crops as under (*ii*) above.

(*Vide* Example No. 12 on the next page.)

Example No. 12.

Old Rice (ordinary.)



Class.	Shares	Soil.	Annas Water.
1	1	8	12
1	1	7	8
2	1	5	10
Total .	3	20	30

Average bhag annas . 6–8 10

Kayam bhag annas—

Soil 6–6

Water .. 10 { *Akasia* .. 5–6 ; *Himayat*. 4–6 }

Sub-soil water (1st class) .. 2–0

Water in the well of the neighbouring number sweet and obtainable at 20 feet.

Explanation.

(*i*) *The figure 2 followed* [illegible] *class of soil* [illegible] *is shewn by* [illegible] *on in shares* [illegible] *the maximum rate, i.e., the Soil* [illegible] *of the number above are annas 6–6 doubled or 13 annas.*

(*ii*) *The letter "A" stands for "Akasia" which is 6 annas in the first two shares and 4 in the third, while the letter "T" stands for "Talav" (tank), by which the classer in Gujarat was accustomed to denote "Himayat" in the classification books.*

B—New Rice.

In the Gujarat Survey New Rice lands were treated as Dry-crop lands possessing an "advantage" over the ordinary land of that class in the facility for conversion into Rice. They were, therefore, classed exactly as Dry-crop with regard to the Soil and Sub-soil Water factors but with an addition thereto in the form of a "Position class" in which the advantage referred to above was taken into account. Where, however, New Rice was irrigable from a tank or river, the Himayat rules of Old Rice were applied while the factor of "Dusota" was also classed in the same way The factors of value taken into account in the classification of New Rice, therefore, were Soil, Sub-soil Water, Position, Himayat and Dusota.

Soil,
Sub-soil Water, } as for Dry-crop.

Position Class.—Three classes of "Position class" were arranged, *viz* —

Class.	Annas.	Description.
1	4	.. Where the land lay below the level of the existing rice land, or of the Dry-crop land in the vicinity, and nothing had to be done but to build the embankments in order to catch the rain or other water
2	$2\frac{1}{2}$	.. Where the land lay on the same level as the existing rice land, or Dry-crop in the vicinity, and nothing had to be done but to build the embankments to impound the rainfall.
3	1	Where the land was slightly above the level of the existing rice land, or Dry-crop in the vicinity, and some excavation had to be made.

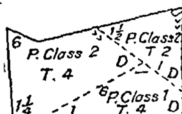
If in lands coming under classes 1 and 2 any appreciable excavation had to be done, a reduction of one anna in each case was allowed.

Himayat,
Dusota, } as for Old Rice

(*Vide* Example No. 13 on the next page.)

EXAMPLE No. 13.

New Rice (with Himayat and Sub-soil Water).



Class.	Shares.	Soil.	Position.	Himayat
6	1	6	4	4
6	1	6	2-6	4
7½	1	4	2-6	2
Total ..	3	16	9	10
Average bhag annas ..		5-4	3	3-4
Add—Position		3-0		
Total.		8-4		

	as.	p.
Kayam bhag annas--		
Soil . .	8	6
Himayat .	3	6
Sub-soil Water (1st class) ..	1	0

Water in neighbouring well sweet and at depth of 24 feet.

C—Vagedu Rice.

Vagedu Rice land is that in which rice is sown broadcast as a mixed crop with *kodra*, *tuver*, etc. The factors of value taken into account were Soil, Sub-soil Water, Akasia and Himayat.

Soil,
Sub-soil Water, } as for Dry-crop.

Akasia.—Additions were made to the Soil annas up to a maximum of 4 annas.

Himayat.—In the few cases where tank irrigation was used an addition of 2 annas was made on this account.

NATURAL BAGAYAT.

This term is applied to the extraordinarily rich class of Garden land which is found only in the Surat District and there chiefly in the talukas of Bardoli, Chikli, Pardi and Chorasi. It is described as a "splendid sugarcane growing soil........ of a rich loamy mould, varying in colour from reddish-brown to deep chocolate. This soil is generally of extraordinary depth, and good water is always found from 12 to 35 feet below the surface......... It is extraordinary to see the tenacity of this soil; so rich is it from top to bottom that a *kacha* well sunk 30 feet through it looks like a hole in a plumcake.. ..... The soil is both *jirayat bagayat* and rice *bagayat*. The very best crops of rice of the description known as *manjurvel*, followed by *methi*, *tur* or *val*, are produced yearly, and every fourth year sugarcane if the soil is well manured"

It is plain from Captain Prescott's remarks that he clearly recognized the difference between the Natural Bagayat and ordinary Dry-crop class of soil, yet strangely enough he failed to do so in the actual classification of the Original Survey; for, instead of distinguishing between them, *all* land growing sugarcane was classed as "Uttam" irrespective of the class of soil or even the water facilities. The result was that this system led to the inclusion in Natural Bagayat of a large quantity of land, which though it produced sugarcane was either of inferior quality or presented no unusual facilities for irrigation, and could not properly be called Natural Bagayat at all. At the Revision Survey these anomalies were remedied and the Natural Bagayat class of land separately distinguished and classed.

For classification purposes this Natural Bagayat class was again sub-divided into 2 sub-classes, viz, Uttam Bagayat and Uttam Prakar —

(1) *Uttam Bagayat*, being land possessing both the peculiar soil and also irrigational facilities of sweet water obtainable at a depth of not more than 30 feet;

(2) *Uttam Prakar*, or land possessing the peculiar soil, but with a water-supply obtainable at depths below 30 feet or not perfectly sweet.

These two sub-classes were again sub-divided into Rice, old and new, and Dhekudiat.

(1) *Uttam Bagayat—Dry-crop.*

The characteristic features of Uttam Bagayat are, as mentioned above, the Uttam soil and a supply of sweet water at a depth of not more than 30 feet; and these are the elements taken into account in the classification.

(*a*) *Soil.*—The characteristic class of soil is that referred to by Captain Prescott, *viz.*, a rich loamy mould, varying in colour from reddish-brown to deep chocolate. The classification scale of this soil was based upon that of the first Order of ordinary Jirayat, with the proviso that it must not be reduced by faults, either of depth or quality, below 14 annas. This meant that soil, even though of the Uttam kind or texture, which was either less than $1\frac{1}{2}$ *haths* in depth or being of full depth ($1\frac{3}{4}$ *haths*) had more than one fault of any kind, was taken out of the Uttam class and considered to be ordinary Dry-crop. The minimum being 14 annas the superior classes of this soil—meaning by "superior" possessing a higher quality of texture or grain within the class itself—were provided for, as in the case of Bhatha, by the addition of 4 extra classes or *gûns* of 2 annas each, or a total of 8 annas, making the maximum classification value of such soil 24 annas.

Practically speaking, therefore, there were 6 classes of Uttam soil, *viz.* :—

Class.	Depth.		Anna value.	
1	$1\frac{3}{4}$–$1\frac{1}{2}$ *haths*	..	24	(16 + 8)
2	Do.	..	22	(16 + 6)
3	Do.	..	20	(16 + 4)
4	Do.	..	18	(16 + 2)
5	Do.	..	16	..
6	Do.	..	14	..

(*b*) *Water.*—The standard of water-supply being that it must be perfectly sweet and obtainable at a depth of not more than 30 feet, the scale for this element was as follows :—

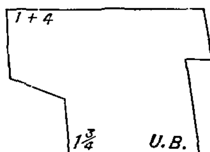
Uttam Water Scale.

Soil Annas.	Sweet throughout the year		
	A	B	C
	10 feet and less	Over 10 feet and up to 20 feet.	Over 20 feet and up to 30 feet
20 annas and above. . ..	12	9	6
16 annas and under 20 annas	8	6	4
14 annas and under 16 annas .	6	4–6	3

(*Vide* Example No. 14 below.)

EXAMPLE NO. 14

Natural (Uttam) Bagayat



Class	*Shares*	*Annas.*
1 + 4	*1*	*24*

Average bhag annas 24
Sub-soil Water . 9

Water in well sweet at a depth of 15 feet

EXPLANATION.

(*i*) *The figure 4 represents the number of gûns of 2 annas each added to the Soil annas. Thus, "class 1 + 4" equals 16 + 8 annas or 24 annas.*

(*ii*) *The Sub-soil water annas (9) have been calculated according to the special Sub-soil scale for Uttam Bagayat land.*

(*ii*) *Uttam Bagayat, Dhekudiat.*

The factors of value were Soil, Sub-soil Water, and Dhekudiat Water, of which the two former were classed according to the Uttam Bagayat scales and the latter according to the ordinary Dhekudiat scale (*vide* p. 310).

(iii) *Uttam Bagayat, Rice.*

(*a*) *Old Rice.*—The factors of value were Soil, Sub-soil Water, Akasia, Himayat and Dusota, of which the Soil and Sub-soil Water were classed as for Uttam Bagayat, and the other three factors as for ordinary Rice.

(*b*) *New Rice.*—The factors of value were Soil, Sub-soil Water, Position Himayat and Dusota, the first two factors being classed as for Uttam Bagayat, and the last three as for ordinary Rice.

(2) *Uttam Prakar.*

This class consists of land, the soil of which is the true Natural Bagayat, but having a water-supply which is either obtainable at a depth of more than 30 feet or is not perfectly sweet throughout the year. Like Uttam Bagayat it is divided into the three sub-classes of Ordinary, Dhekudiat and Rice.

(*a*) *Dry-crop.*

The factors of value are Soil and Sub-soil Water which were classed as follows :—

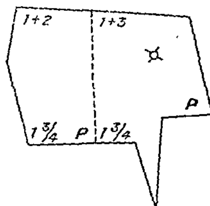
Soil—as for Uttam Bagayat.

Sub-soil Water—either half the *ordinary* Sub-soil annas were applied, *i.e.*, up to a maximum of 3 annas, or none at all.

(*Vide* Example No. 15 below.)

EXAMPLE NO. 15.

Uttam Prakar.



Class.	*Shares.*	*Annas.*
1 + 3	*1*	*22*
1 + 2	*1*	*20*
Total ..	*2*	*42*

Average bhag annas .. *21*
Sub-soil water (2nd class). *1-6*

Water in well brackish and drinkable, at depth of 35 feet.

EXPLANATION.

The class is Uttam Prakar and not Uttam Bagayat because, though the soil is of the Uttam quality, the water is brackish and only obtainable below 30 feet.

(i) The figures 2 and 3 represent the number of gûns of 2 annas [illegible] *"Class 1 + 3" therefore* [illegible] *ass 1 + 2" equals 16 + 4 or 20 annas.*

(ii) The sub-soil water annas on a classification value of 21 annas would ordinarily be 3 annas, but for Uttam Prakar Soil they were halved.

(b) *Dhekudiat.*

As for Uttam Bagayat Rice with the substitution of the Uttam Prakar Sub-soil Water scale for that of Uttam Bagayat.

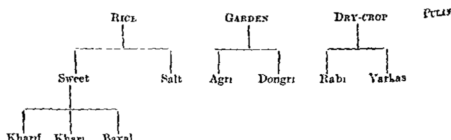
(c) *Uttam Prakar Rice.*

Old Rice,
New Rice, } both these were classed as Uttam Bagayat with the substitution of the Uttam Prakar Sub-soil Water scale.

CHAPTER V.

THE KONKAN SYSTEM OF CLASSIFICATION.

THE Land Classes of the Konkan system of classification are as follows :—



RICE.

Rice lands in the Konkan are divided into two principal classes, *viz.*, Sweet and Salt, the former comprising the Rice grounds situated above sea-level, in which the main crop is grown by means of the moisture afforded by the rainfall and drainage from higher lands. Where the situation is favourable a second crop of summer rice (*vaingan*), pulse, etc., is sometimes produced by the aid of irrigation from streams or water-courses when the natural moisture is insufficient. In the cultivation of Sweet Rice the fields are ploughed and the plants transplanted therein after having been germinated in a specially prepared seed-bed. Salt Rice, on the other hand, is grown in lands situated close to the salt creeks, which have been reclaimed from the sea and which are, therefore, often embanked at great expense in order to guard against flooding with salt water. For the cultivation of Salt Rice the land is never properly ploughed, only a few clods being turned over here and there by the pickaxe. Neither is the land *râbed*, the only manure being derived from the decomposition of the stubble of the rice plants, nor is transplantation used, the seed being simply soaked until it has germinated, when it is sown broadcast and trodden into the ground.

A.—SWEET RICE.

Sweet Rice lands are divided into three sub-classes, *viz.*, Kharif, comprising the ordinary Sweet Rice lands, and two

special classes called Khari and Baval, which are of very small extent.

(i) *Kharif.*

(*1*) *Old Kharif.*—The following account, taken from the Original Settlement Report of the old Nasrapur taluka, will shew the basis of the classification system of this class of land :—

"With regard to the classification of Rice lands, a great variety of different kinds of Rice are produced in the Nasrapur taluka, but the cultivators generally class them under the two denominations of *halva* and *garva*. The former include the early crops of rice, which are almost all the coarse and inferior descriptions of grain, commanding, comparatively speaking, a small marketable value. *Panvel patni* is the finest kind coming under this head, but it does not fetch the same price in the *bazar* as the *garva* sorts. The coarsest kinds are the *vanpik*, so called from the circumstance of their being harvested during the monsoon: about the end of September being the time that the cutting of this kind of crop is commenced. All other descriptions of *halva* are usually harvested during the month of October.

"*Garva* is the term applied to the late crops. All the fine kinds of rice come under that denomination. They are longer in the ground than the *halva*, and as their cutting season does not commence until the beginning of November they necessarily require a situation where there is a good command of water or some internal spring to afford moisture after the regular *monsoon rains are over. These descriptions* always fetch from Rs. 2 to Rs. 4 a *khandi* more than the *halva*.

"I propose to take advantage of the abovementioned classification of the crops, not on that account merely, but because it affords a good standard of comparison by which we may estimate the relative values of the productive properties of each kind of Rice lands, and, moreover, will form, I anticipate, a good guide for our classers, as *halva* and *garva* fields are readily distinguished from each other."

The actual fields classification was done in accordance with Soil and Water scales which were as follows :—

(a) *Soil.*

Class	Depth in cubits	1st Order. Yellowish, dark red, red or brown, and capable of producing "Garva" crops	2nd Order. Red, grey or black, not capable of producing "Garva" crops, always sown with "Halva" crops
		a p	a. p.
1	1	8 0	6 0
2	¾	7 0	5 0
3	½	5 6	3 6
4	¼	4 0	2 0

Faults.—The chief deteriorating factors taken into account as "faults" were, in the case of first order soil only, the presence of gravel or black soil, and, in that of both classes, the impregnation of the soil with salt. In either case a reduction of one, two or three classes was made according to the effect upon fertility. Where first order soil was below ¼ *hath* in depth it was reduced to the second order.

A peculiar class of fault is that found in—what is called—*jalvat* land, which consists in the liability of the crop to rot owing to excess of moisture. This results in water-logging which is accompanied by the production of a kind of white grass which is generally found growing on it. There are several varieties of this class of soil which were always considered as second order and reduced one or two classes according to the liability of the crop to rot.

In general no conventional signs were used to denote the kind of fault for which reduction was given and the reason for such reductions, where made, is, therefore, usually a matter of conjecture. Sometimes, however, the sign V was used for one fault, V̌ for two faults, and so on.

(b) *Water.*

The water supply in the case of Sweet Rice lands is derived from one or more of three sources, *viz.*, from Natural Mois-

due to drainage from higher grounds, from *Páts* or water-courses, and lastly from Tanks, *Nalas* or Wells. The use of the latter two sources is generally to produce a second crop of vegetables, pulse, etc.

(*i*) *Natural Moisture.*

Class.	Annas		Description.
1	8	..	Fields well embanked: drainage good. *Garva* crops, such as *ambe mohor*, *patni*, etc., usually grown.
2	6	..	Fields well embanked: full crop of *halva* grown with certainty.
3	4	.	High-lying fields: *halva* crops grown, but full crop uncertain.
4	2	..	High-lying fields: no drainage from higher grounds; or fields not level: without embankments.

(*Note.*—In Ratnagiri there were five classes of water supply similar to the above, classed at 8, 6, 4½, 3 and 2 annas respectively.)

The anna values according to this scale might have additions or reductions according to the possession of certain natural advantages or disadvantages as follows:—

Additions—

(*i*) Where sugarcane grown occasionally.	4 annas.
(*ii*) Where a second crop of grain or pulse grown.	2 annas.
(*iii*) Where crops improved owing to drainage from hills or village sites.	2 annas (except in 1st Class).

Reductions—

(*i*) Where, owing to soil faults, *rabi* crop only cultivated every three or four years.	2 annas.
(*ii*) Where crops affected by salt water.	2, 4 or 6 annas according to damage.

The actual fields classification was done in accordance with Soil and Water scales which were as follows :—

(*a*) *Soil*

Class	Depth in cubits	1st Order. Yellowish, dark red, red or brown, and capable of producing "Garva" crops	2nd Order Red, grey or black, not capable of producing "Garva" crops, always sown with "Halva" crops.
		a p	a. p.
1	1	8 0	6 0
2	¾	7 0	5 0
3	½	5 6	3 6
4	¼	4 0	2 0

Faults.—The chief deteriorating factors taken into account as "faults" were, in the case of first order soil only, the presence of gravel or black soil, and, in that of both classes, the impregnation of the soil with salt. In either case a reduction of one, two or three classes was made according to the effect upon fertility. Where first order soil was below ¼ *hath* in depth it was reduced to the second order.

A peculiar class of fault is that found in—what is called—*jalvat* land, which consists in the liability of the crop to rot owing to excess of moisture. This results in water-logging which is accompanied by the production of a kind of white grass which is generally found growing on it. There are several varieties of this class of soil which were always considered as second order and reduced one or two classes according to the liability of the crop to rot.

In general no conventional signs were used to denote the kind of fault for which reduction was given and the reason for such reductions, where made, is, therefore, usually a matter of conjecture. Sometimes, however, the sign V was used for one fault, V̬ for two faults, and so on.

(*b*) *Water.*

The water supply in the case of Sweet Rice lands is derived from one or more of three sources, *viz.*, from Natural Mois-

due to drainage from higher grounds, from *Pâts* or water-courses, and lastly from Tanks, *Nalas* or Wells. The use of the latter two sources is generally to produce a second crop of vegetables, pulse, etc.

(*i*) *Natural Moisture.*

Class.	Annas.	Description.
1	8	.. Fields well embanked: drainage good. *Garva* crops, such as *ambe mohor, patni*, etc., usually grown.
2	6	.. Fields well embanked: full crop of *halva* grown with certainty.
3	4	. High-lying fields. *halva* crops grown, but full crop uncertain.
4	2	.. High-lying fields: no drainage from higher grounds; or fields not level: without embankments.

(*Note.*—In Ratnagiri there were five classes of water supply similar to the above, classed at 8, 6, $4\frac{1}{2}$, 3 and 2 annas respectively.)

The anna values according to this scale might have additions or reductions according to the possession of certain natural advantages or disadvantages as follows:—

Additions—

(*i*) Where sugarcane grown occasionally.	4 annas.
(*ii*) Where a second crop of grain or pulse grown.	2 annas.
(*iii*) Where crops improved owing to drainage from hills or village sites.	2 annas (except in 1st Class).

Reductions—

(*i*) Where, owing to soil faults, *rabi* crop only cultivated every three or four years.	2 annas.
(*ii*) Where crops affected by salt water.	2, 4 or 6 annas according to damage.

(ii) *Water-supply from Pats.*

The classes of supply were as follows :—

Class	Annas	Description.
1	6	.. (*a*) Supply sufficient for late crop of summer rice (*vaingan*) and lasting till the end of April.
	4	.. (*b*) Supply sufficient only for early crop of summer rice.
2	4	.. Sugarcane cultivable every two or three years or *brinjals* or other vegetables.
3	2	.. Second crops of *nagli, kulit*, etc., cultivable.

Where the water-course was crossed by *nalas*, necessitating the use of troughs or manual labour to bring the water, the additional annas were reduced by 2.

(iii) *Water-supply from Tanks, Nalas or Wells.*

Class	Annas	Description
1	2	.. Where summer rice grown by means of irrigation by *rahats* or *uktis*.
2	1	.. Where *nagli, kulit* or other pulse grown.

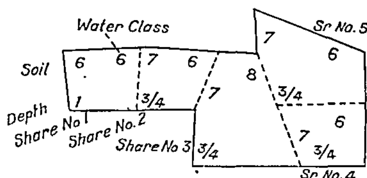
Where the water-supply was only used for two or three months to supplement the natural moisture, the additions were 4 and 3 annas respectively.

In making entries regarding these different water classes in the *prati* books when more than one class of water was present in the same number, the annas for each class were shewn as $\frac{4}{6}$, the top figure referring to the Natural Moisture class, and the lower to the *pat* or tank class as the case might be. In cases where a monsoon crop was either not grown at all or only occasionally, the Natural Moisture class was either not applied or reduced to 2 annas, and the entry in the *prati* book shewn as, *e.g.*, $\frac{0}{6}$ or $\frac{2}{6}$. In the Kolaba district, after 1885, lands of this kind with a water class of 0, were treated as *varkas*.

(*Vide* Examples Nos. 16 and 17 below.)

EXAMPLE No. 16.

Sweet Rice.



Class	*Shares*	*Annas*
15	*1*	*15*
13	*3*	*39*
12	*1*	*12*
Total .	*5*	*66*

Bhag annas .. *13–2*

Kayam Bhag annas *13–0*

Water reduced one class on account of excessive moisture causing the crops to rot

EXPLANATION

(*a*) *The figures give the depth of soil, soil annas and water class for each share as shewn. Faults of soil are not given when, as in the left hand share, the soil annas have been reduced on that account from 8 to 6. Nor is the soil class given, whether first or second, as it is in the Deccan and Gujarat Surveys.*

(*b*) *By 'Class 15, 13 and 12' is meant the combination of soil and water annas, share No 3 having 7 as. soil + 8 as. water = class 15 annas; and so on.*

EXAMPLE No. 17.

Sweet Rice (watered from a pát).

Water
Pat
4/4
Soil 3½
3½ 2/4
3½ 2/4

Class.	*Shares.*	*Annas*
11½	*1*	*11½*
9½	*2*	*19*
Total	*3*	*30½*

Bhag annas .. *10-2*
Kayam bhag annas .. *10-0*
Division of anna valuation—

		as. p.
Soil	..	*3 6*
Water	..	*2 6*
Pát water	..	*4 0*
Total	..	*10 0*

EXPLANATION.

The figures give the soil, water and pát annas Neither the depth, class or faults, if any, of soils are shewn, but only the annas.

(2) *New Kharif.*—New Rice lands in the Thana and Kolaba districts were classed exactly as Old Rice but were assessed by the Rabi Maximum Rate (*vide* Part I, p. 156). In Ratnagiri there are no New Rice lands, the original classification having been declared final before the introduction of the Revision Settlements.

(ii) *Khari.*

This class of Rice land is defined as that formed on laterite plateaux, either naturally by the accumulation of soil or artificially by hollowing out the laterite rock or surrounding small areas with stone walls and filling up the interior with soil brought from elsewhere. The produce is precarious, depending on the rainfall. The soil is always *rábed* and the seed sown broadcast. The factors of value are soil and water.

Soil.—Classed as Sweet Rice of the second order.

Water.—Classed at 3, 2 or 1 anna according to the situation and nature of the crop that may be expected.

It may be noted that, previous to 1885, Khari land was classed for soil only in 2 classes: first 12 annas and second 8 annas, the water factor being disregarded.

(iii) *Baval.*

This class of Rice land is defined as that formed from the accumulation of soil in the natural hollows existing in the laterite plateaux: it is sometimes extensive, and, being generally basin-shaped, retains the rain-water and produces fair rain crops but requires *rabing* like *Khari.*

The classification was done exactly as for *Kharif.*

B.—Salt Rice (Kharapat or Khajan).

(i) *Old Rice.*

In spite of the differences in kind and also in method of cultivation, there is a broad, general correspondence between the seasonal varieties of Sweet and Salt Rice which made for the adoption of the same basis of classification, the *choka* and *ratch*, or red and white rices of the Salt lands, being the exact counterparts of the *garva* and *halva* of the Sweet. The factors of value are soil, water and *dusota*, or facility for growing a second crop.

(*a*) *Soil.*—Two orders of soil were distinguished, first the reddish soils, such as, being comparatively distant from the sea or under the influence of hill drainage, are found only slightly impregnated with salt; and secondly the black soils which are the more numerous, and are met with in different degrees of fertility according to the quantity of salt they contain.

Class	Depth in cubits	1st Order Reddish coloured soil, distant from the sea or under the influence of hill drainage	2nd Order. Black soil, under the influence of salt water with no direct drainage of sweet water.
		Annas	Annas
1	1	8	7
1	1	8	7
2	¾	7	6
3	½	6	4½
4	¼	5	3

Faults.—As for Sweet Rice.

(*b*) *Water.*—At the Original Survey the Water factor of Salt Rice lands was classed according to the Sweet Rice scale, faults being given on account of salt impregnation. At the Revision Surveys the classification of Old Rice lands was confirmed; hence, in the case of the greater proportion of Salt Rice lands, the classification of the Water factor will be found to have been done according to the Sweet Rice scale.

For New Rice lands, however, and also for all other Rice lands which had to be re-classed on account of mistakes made at the Original Survey, etc., the following revised scale w employed :—

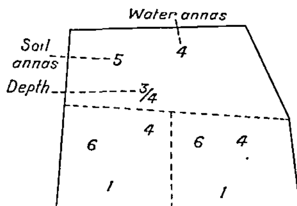
Class	Annas.	Description.
1	8	. Rice fields adjoining sweet rice lands, or having the drainage of sweet rain-water from higher ground, or capable of producing the superior kinds of *choka* rice from the existence of surface springs or natural moisture.
2	6	. Fields having a smaller supply of water than the above situated on high levels and producing *halva patni* rice.
3	4½	.. Fields near salt water, producing onl *ratch* crops and not yielding a g *choka* or *halva patni* crop, water-sup being fair.
4	3	.. (1) Fields near salt water creeks and n the dams, producing only *ratch* cro or in which the salt water percola through the soil. (2) *Fields producing bhore and ot* medium kinds of *choka* rice, and havi an inferior water-supply, the la sloping and water not standing upon i
5.	2	.. Land subject to flooding by salt wat or with standing pools of salt-water.
6	0	.. Land washed over by salt water and havin hollows retaining salt water, only abou half the land producing crops, cultivation being done in patches only.

(*c*) *Dusota.*—Where a second crop was grown after rice owing to the advantage of situation—2 annas.

(*Vide* Example No. 18 on the next page.)

EXAMPLE No. 18.

Salt Rice.



	Class.	*Shares*	*Annas.*
	10	*2*	*20*
	9	*1*	*9*
Total	.	*3*	*29*
		as.	*p.*
Average bhag annas	..	*9*	*8*
Kayam bhag annas	..	*9*	*6*

EXPLANATION

(ii) *New Rice*

New Salt Rice lands, just as new *kharif*, were classed in Thana and Kolaba as Old Salt Rice, but assessed at the dry crop maximum. There are no New Salt Rice lands in Ratnagiri, the original classification having been declared final.

GARDEN.

Garden lands in the Konkan are divided into two chief classes, *viz.*, Agri and Dongri, the former comprising alluvial soils situated near the coast and the latter lands situated inland with gravelly soils. Both classes grow the same kind of crops.

viz., cocoanuts, *suparis*, etc., but the Agri class are much the more valuable owing to their natural advantages of soil, water-supply and situation, the Dongri lands having a soil of the *varkas* type, requiring much labour and artificial irrigation to produce crops considerably inferior to those of Agri. In the latter class of soils artificial irrigation is only needed occasionally, and, where necessary, is carried on by means of water drawn from tanks, wells or streams. In Dongri Bagayat such assistance is always required.

At the Original Surveys the system of classification in the case of both Agri and Dongri took account of 3 factors, viz., Soil, Water and Trees the existing number of fruit-trees being counted and a classification value imposed according to the scale given subsequently. This system still obtains in [illegible] declared [illegible] Govern[illegible] [illegible]s decided at the Revision Settlement of the Mandangad petha of the Dapoli taluka that the rectification of the old classification system would be illegal. In Thana and Kolaba, however, a new system of classification was introduced at Revision by which the factor of Position was substituted for that of trees, the latter being clearly an unsafe basis as a permanent standard of relative value. By the factor of "position" was meant the situation of the field with reference to its capacity for receiving drainage from higher ground and accumulating a store of natural moisture.

It must, however, be noted that the assessment of Garden lands in the Konkan, like that of *patasthal* in the Deccan, was fixed, not by the application to the Classification values of a pre-determined *jantri*, but by the Superintendent personally after consideration of all the circumstances affecting the fertility of each garden individually. Hence the field classification carried out according to the rules explained below was used rather as a guide than as actually determining the rate.

(i) *Agri Bagayat.*

This class of land is defined as

(*a*) land situated in the vicinity of salt water, rivers and creeks and on the coast, producing cocoanuts and *suparis* in alluvial and sandy soils with little or no irrigation owing to its large store of natural moisture ;

(*b*) land producing—generally with irrigation—grafted mangoes, fruit-trees, sugarcane, vegetables, etc., in

Dry-crop soil superior to *rabi*, though not being rice or *varkas* land proper

The factors of value taken into account, as previously stated, were Soil, Water and Trees in Ratnagiri or Position in Thana and Kolaba.

(*a*) *Soil*.—The soil factor was classed according to the following scale :—

Class	Depth	Annas	Description
1	1½ cubits	8	Soil consisting of sand and earth in about equal proportions
2	1½ cubits	6	Soil of reddish colour containing more sand than earth
3		4	White, sandy soils near the sea-shore

Faults.

(i) Karal—soft sandy stone or limestone	If found within 1 *hath* of the surface, soil reduced one class
(ii) Hard sand-stone	(*a*) In 1st class soils : if found within 1 *hath*, soil reduced two classes (*b*) In 2nd class soils : if found within 1 cubit, soil reduced one class
(iii) If *supari* and cocoanut trees exposed to the south wind or affected by white ants	Soil reduced one class, except in 3rd class

As usual in the Konkan, no conventional signs seem to have been fixed to denote these faults

(*b*) *Water* —The principal sources of water-supply are three, viz., Natural Moisture, Tanks or Streams, and Wells to which must be added that of manual irrigation by *ghagars* or pots

(*i*) *Natural Moisture*

Class	Annas	Description
1	8	.. Where the cocoanut and *supari* trees flourish, the moisture being perennial without being excessive.
2	6	.. As above, but situated in inaccessible places in the hills
3	4	.. Moisture not perennial, but decreasing in the hot weather, causing the trees to suffer.

Where moisture excessive, a reduction of one class to be made.

(ii) *Tanks and Streams.*

Class.	Annas.	Description.
1	8	.. Water received by natural flow through a *pat*, lasting throughout the year and ample for watering every second or third day.
2	6	.. As above, but lasting only till April and afterwards falling short.
3	4	.. Natural flow till March, but afterwards necessitating a reservoir for collection and flow of water.
4	2	.. Natural flow to January or February only.

A reduction of one class was made—

(*a*) when the *pat* water had to be conveyed from a large *nala* by a trough;

(*b*) when the water had to be raised to the *pat* by hand at the end of the season,

(*c*) when irrigation from the tank or stream was by means of a *rahat* or *ukti*.

(iii) *Wells.*

The instrument of irrigation is the *rahat* or Persian wheel worked either by bullock or hand power The wells are either "*pakka*", i.e., permanently built of brick, or "*kacha*", i.e., temporary and built of rubble only. For purposes of classification they were divided into four classes according to their supply of water and their permanent or temporary character.

Class.	Annas	Description.
1	8	.. Well made of stone laid in mortar: water-supply all the year round and sufficient for watering every other day or every third day, as required.
2	6	.. Well *pakka* or *kacha*, with supply diminishing about April and only sufficient for watering once in eight days.
3	4	.. Well *pakka* or *kacha*, with supply decreasing in March: in April there is only enough for one watering and in May it is quite dry.
4	2	.. Well *pakka* or *kacha*, but the *rahat* is used for only about two months after the rains.

In the *prati* book full details were required to be given regarding all facts bearing upon the question of water class, such as the depth of the water from the surface, the class of supply, the kind of well and its age if known, the quality of the water, etc.—for which see Konkan Classification Rules, paragraph 58 Details were also required regarding the number of fruit-trees in the garden and their kind, in accordance with the rules given subsequently under the head of the "Tree factor".

In applying this system of well classification, however, it was necessary to take into account another factor, viz., the area irrigable. A *rahat* can only irrigate a certain area of ground, and the full classification value of 8, 6, etc., annas could not be applied to the whole survey number irrespective of its area, as that would have meant assessing as irrigated land which in the nature of the case was not irrigable This difficulty was met in the following way —It was found after a series of experiments that a single *rahat*, working regularly, could irrigate about $1\frac{1}{2}$ acres of land In the case, therefore, of a number containing more than this area the full classification value of the well was spread over the whole field proportionately by dividing it by $\frac{\text{the area of the field}}{1\frac{1}{2}\text{ acres}}$ Thus, if the field were 3 acres in area and the *rahats* were second class, i.e., valued at 6 annas, the proportionate value for the whole field would be annas 6, i e, $1\frac{1}{2} \div 3$ annas: in other words, the field was treated as possessing a half supply for the whole area instead of a full supply for half of it.

Conversely, if the field had two *rahats* working the allowance would be doubled.

(iv) *Irrigation by Ghagars or water pots*

Under this system of irrigation the water is brought by labourers from the river, tank, well or other source in *ghagars* and poured over the irrigated area Fields watered in this way were classed at 2 annas on account of their water supply.

(c) *The Tree factor.*—This factor is now taken into account only in Ratnagiri In justifying his adoption of the number of trees standing in a survey field as an element in classification value, Captain Francis took his stand upon the practice of former Indian administrations under which it was, he states, the custom " to consider 50 trees as the number to a *bigha* and, where less than that number were planted, a land rate was

charged for the area considered unplanted " in proportion to the average number of trees over the whole area.

Under Captain Francis' system of Tree classification, fruit-trees were divided into three classes, viz.—

(a) *Bardar*, or bearing, comprising all trees which ha- come into bearing or were in blossom and would, therefore, bear that season ;

(b) *Umedvar*, or young trees. or all those of which the stems shew above the ground, but have not come into bearing ;

(c) *Rops*, or seedlings ; those whose leaves only shew abo the ground, no portion of their stems being visible.

In fixing the classification scale the unit number per acre was taken to be 60 bearing cocoanuts, 60 being substituted for the 50 of the former scale owing to the larger size of the acre as compared with the *bigha*. Land containing this number of trees was then classed at 16 annas with a descending scale smaller numbers, as follows —

Number of cocoanut trees in bearing per acre		Anna valuation.
From	To	
60	55	16
54	48	14
47	43	12
42	34	10
33	26	8
25	18	6
17	14	4
13	9	3
8	6	2
5	4	1–6
3	$1\frac{1}{2}$	1–0
1	....	0–6

Where trees other than cocoanuts in bearing were found, they were reduced to the denomination of "bearing cocoanuts" according to the following scale :—

4 *umedvar* cocoanuts	= 1	bearing cocoanut.
4 *supari* trees	=	do.
1 grafted mango	=	do.
2 jack-fruit trees	=	do.

Other fruit-trees, such as *ramfal. kaju*, guava, etc., were to be counted and noted, but were not actually brought under the classification scale, though their number would be taken into account by the Superintendent at the time of fixing the rate of assessment.

(*d*) *Position Class* —As previously explained, this factor was substituted at Revision for that of the Tree factor in the Thana and Kolaba districts. Three classes were arranged, varying according to the situation of fields with respect to their natural advantages for obtaining moisture by drainage from higher levels.

Class.	Description.
1	.. Gardens in low and level situations where the natural moisture is good.
2	. Gardens in level but high situations, where the natural moisture of the soil is less in consequence of the soil being hard and water only found at a greater depth
3	.. Gardens adjoining or on the slope of hills, where the trees will not flourish without being freely watered in consequence of there being no natural moisture

In working out the classification value of the field the Position Class was reduced to annas in accordance with the following scale, by which the addition was graded proportionately to the classification of the Soil and Water annas combined —

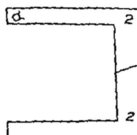
Soil water.	Position Class.				
Combined annas	1	1½	2	2½	3
12-6—16	8	7	6	5	4
8-6—12	6	5	4	3	2
4—8	4	3	2	1	..

The half classes were given to gardens falling between the full classes

(*Vide* Example No. 10 on the next page)

Example No. 19.

Agri Bagayat.



Soil.

	Class.	Shares.	Annas.
	2	2	12
Total ..		2	12

Average bhag annas .. 6-0

Water.

By rahat ..	1	8
By ukti ..	1	6
Total	2	14

Average bhag annas .. 7-0

Trees.

	Bearing.	Young.	Seedling.
Coconuts ..	20	3	3

Explanation.

(1) One share is watered from a pakka well in pôt No. 14: therefore 1st water class.

(2) The well in the number is brackish; from it one share is watered by ukti: therefore 2nd water class.

(3) The water is at a depth of 8 feet.

(4) The soil is flat and, there being a nala adjoining, there is plenty of moisture: hence 1st Position class.

(5) The position annas are noted in the Bagayat Takta.

(ii) Dongri Bagayat.

This class of land is defined as land producing coconuts and *suparis*, or grafted mangoes, fruit-[illegible] etc., situated inland on *varkas* soil, [illegible] slopes, where the soil is very hard [illegible] where there is little or no sub-soil moisture and irrigation is always required, even when the trees are grown up.

The methods of irrigation are the same as in Agri, and the factors of classification value are also identical, *viz.*, Soil, Water, Trees (in Ratnagiri only), and Position (in Thana and Kolaba)

Soil.—The soil of Dongri Bagayat is really *varkas* and previous to the publication of the revised Konkan Classification Rules in 1885 was classed accordingly, though the value assigned to the two classes was 8 and 6 annas respectively instead of 6 and 5. By the revised rules, however, a new scale was introduced which was as follows :—

Class.	Depth.	Annas	Description
1	1 *hath*	8	Red soil, free from sand and situated on a level
2	$\frac{3}{4}$ to $\frac{1}{2}$ *hath*	6	Soil as above, but sloping in surface
3	less than $\frac{3}{4}$ *hath*	4	Soil mixed with *muram* and situated on hill sides
4	less than $\frac{1}{2}$ *hath*	2	Soil as above, but with very sloping surface

Faults.

If *supari* and cocoanut trees exposed to the south wind or damaged by white ants, reduction of one class except in 4th.

Water —, *Trees.*—, *Position.*— } These three factors were classed in exactly the same way as for Agri (*Vide* Example No 20.)

EXAMPLE No. 20.

Dongri Bagayat.

Soil.

Class.	*Shares*	*Annas.*
3	*1*	*4*

Kayam bhag annas . . *1-0*

Water.

Well Class . . *1-0*

	Area a	*Area gu*	*Shares*	*Annas*
By rahat	*1*	$1\frac{3}{4}$	*1*	[illegible]

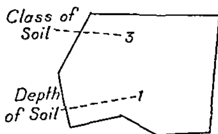
Kayam Bhag Annas [illegible]

Combined Water and Soil Annas

Soil . . [illegible]

Water . . [illegible]

Total . . [illegible]



Trees.

	Bearing.	*Half-grown.*	*Seedlings.*
Coconuts ..	*50*	*10*	*20*
Suparis ..	*100*	*50*	..
Jack-fruit	*25*	..	..
Guavas ..	*10*	..	..

Position Class.

Situation low and level with good moisture : therefore 1st class.

EXPLANATION.

(i) The soil depth is 1 hath, but the class is 3rd, presumably on account of some fault which, as usual, is not shewn.

(ii) The position Class is 1st and the addition to be made to the classification according to scale is, therefore, 8 annas. The increase is shewn, not in the prati book, but in the Bagayat takta.

(iii) The number of trees is noted as shewn above. In the Kolaba and Thana districts they would not be taken into account in the classification ; but in Ratnagiri for reasons explained on p. 337 they were a substitute for the "Position" factor. The addition to the classification on account of the number of trees given in the present example, according to the Tree scale, would be as follows :—

Trees.	*Number*	*Classification value.*
Coconuts .	*50*	*14 annas.*
Suparis ...	*100*	*6 "*
	(=25	*coconuts).*

Total addition 20 annas.

Minor classes of Bagayat.

Besides the two main classes of Bagayat, Agri and Dongri, there are five other nominally distinct classes found in Ratnagiri, *viz.*, Malkhandi Ambri Bagayat, Varkas Bagayat, Malve Bagayat, Rabi Bagayat, and Nipani Bagayat. Of these, Varkas Bagayat is only another name for Dongri ; Malve and Rabi Bagayat are practically identical and are explained under the head of Rabi. Of the remaining two—

(*a*) *Malkhandi Ambri Bagayat* is found only in Mandangad petha and consists of Rabi land in which mangoes, grafted mangoes, or jack-fruit trees are grown. It was classed for Soil and Trees—for Soil according to the Rabi scale and for

Trees by a scale differing only slightly from that previously given.

(b) *Nipani Bagayat* is found only in the Vengurla taluka. It is simply Agri or Dongri to which no Water class has been assigned at all, either because artificial irrigation is not employed or because such irrigation is used only when the trees are small and then as a measure of charity from the wells of others. Such land was classed for Soil and Trees, the assessment being imposed according to a special *jantri*.

DRY-CROP.

Dry-crop lands in the Konkan are divided into two classes, *viz.*, Rabi and Varkas. Of these, Rabi comprises the alluvial soils situated in the vicinity of rivers, creeks and streams, producing the so-called "Rabi" crops of *tur*, *tag*, *kulit*, etc, and sometimes in favourable situations irrigated crops of sugarcane and vegetables The Varkas on the other hand consist of the enormous stretches of coarse, shallow soil, the better classes of which, called "*bhatle*." approximate to Rabi and sometimes grow Rabi crops, while the poorer soils are used, either as an adjunct to the rice fields as a source of *rab* for growing Varkas crops such as *nachni*, *vari*, etc., or for the production of grass which, owing to the great demand from Bombay, is now a highly valuable article of commerce.

Until the year 1892, these two classes of land had been considered separate and distinct, and had, therefore, been assessed at different maximum rates In the Panvel Revision Settlement Report, however, the Settlement Commissioner, Mr. Ozanne, pointed out that this distinction was inaccurate and misleading, as Varkas is in reality merely inferior Rabi, just as the Deccan Mal is inferior Dry-crop. Rabi and Varkas should, therefore, be considered as two grades of one class, Dry-crop, and assessed under one and the same maximum rate. This suggestion was approved by Government and thereafter the practical distinction between the two was abolished, though the nomenclature was retained.

(i) *Rabi*

Rabi lands are divided into two sub-classes, Bandhni and Malkhandi, which are defined in the classification rules as follows :—

(a) *Bandhni rabi* is land which is embanked so as to retain water and silt, and which, on account of excess of water in

	Trees.		
	Bearing.	*Half-grown.*	*Seedling.*
Coconuts ..	*50*	*10*	*20*
Suparis ..	*100*	*50*	..
Jack-fruit	*25*	..	..
Guavas ..	*10*	..	..

Position Class.

Situation low and level with good moisture: therefore 1st class.

EXPLANATION.

(i) *The soil depth is 1 hath, but the class is 3rd, presumably on account of some fault which, as usual, is not shewn.*

(ii) *The position Class is 1st and the addition to be made to the classification according to scale is, therefore, 8 annas. The increase is shewn, not in the prati book, but in the Bagayat takta.*

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Trees.	*Number*	*Classification value*
Coconuts ..	*50*	*14 annas*
Suparis . ..	*100*	*6* ,,
	(=*25*	*coconuts*).

Total addition 20 annas.

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Besides the two main classes of Bagayat, Agri and Dongri there are five other nominally distinct classes found in Ratnagiri, *viz.*, Malkhandi Ambri Bagayat, Varkas Bagayat, Malve Bagayat, Rabi Bagayat, and Nipani Bagayat. Of these, Varkas Bagayat is only another name for Dongri; Malve and Rabi Bagayat are practically identical and are explained under the head of Rabi. Of the remaining two—

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DRY-CROP.

Dry-crop lands in the Konkan are divided into two classes, *viz.*, Rabi and Varkas. Of these, Rabi comprises the alluvial soils situated in the vicinity of rivers, creeks and streams, producing the so-called "Rabi" crops of *tur*, *tag*, *kulit*, etc., and sometimes in favourable situations irrigated crops of sugarcane and vegetables. The Varkas on the other hand consist of the enormous stretches of coarse, shallow soil, the better classes of which, called "*bhatle*" approximate to Rabi and sometimes grow Rabi crops, while the poorer soils are used, either as an adjunct to the rice fields as a source of *rab* for growing Varkas crops such as *nachni*, *vari*, etc., or for the production of grass, which, owing to the great demand from Bombay, is now a highly valuable article of commerce.

Until the year 1892, these two classes of land had been considered separate and distinct, and had, therefore, been assessed at different maximum rates. In the Panvel Revision Settlement Report, however, the Settlement Commissioner, Mr. Ozanne, pointed out that this distinction was inaccurate and misleading, as Varkas is in reality merely inferior Rabi, just as the Deccan Mal is inferior Dry-crop. Rabi and Varkas should, therefore, be considered as two grades of one class, Dry-crop, and assessed under one and the same maximum rate. This suggestion was approved by Government and thereafter the practical distinction between the two was abolished, though the nomenclature was retained.

(*i*) *Rabi*.

Rabi lands are divided into two sub-classes, Bandhni and Malkhandi, which are defined in the classification rules as follows.—

(*a*) *Bandhni rabi* is land which is embanked so as to retain water and silt, and which, on account of excess of water in

the rains, cannot grow rice, or land which is flooded by fresh water and on which silt or alluvial deposit is found, and which may grow rice.

(*b*) *Malkhandi rabi* is land originally formed by alluvial deposit, but which is not now over-flooded by fresh water and has therefore no benefit from fresh alluvial deposit. It is not embanked, but is open land like Jirayat.

The factors of value taken into account in classification were soil for irrigated lands, Water and Position in the case of lands favourably situated for conversion into Rice or Garden.

In the actual work of classification Bandhni and Malkhandi were treated simply as two orders of soil under the one head of "Rabi" and classed together in the same field just as Black Soil and Goradu was classed in Gujarat.

(*Vide* Example No. 21 below.)

EXAMPLE No. 21.

Rabi.

Class	*Shares*	*Annas*
1	1	16
2	1	14
3	1	12
4 (*m*)	1	10
Total .	4	52

Average Bhag annas . 13-0

EXPLANATION.

In the above example there are three shares of Bandhni and one of Malkhandi Rabi, the latter being denoted by the letter "m" given against class 4.

(*a*) *Soil.*—The soil scale was as follows :—

Class.	Depth	Annas.	
		Bandhni.	Malkhandi.
1	1½	16	..
2	1¼	14	..
3	1	12	12
4	¾	10	10
5	½	8	8
6	¼	6	6

Faults.

In soil classification the following "faults" were taken into account with the exception, in the case of Malkhandi Rabi, of Nos. 1, 4 and 5:—

No.	Description.	Conventional sign
1	A peculiar mixture, more or less impervious to water ..	∧
2	Liability to be swept over by running water	~~~~
3	A mixture of sand	∨
4	An excess of moisture from surface springs	□
5	A mixture of limestone	∴

For each fault present the ordinary soil classification was owered by one class or 2 annas in the usual way.

(*b*) *Water.*—The garden crops grown in irrigated Rabi are hiefly sugarcane and vegetables such as *brinjals.* Such rigated land is called "Rabi Bagayat," though it is not ncluded technically under the head of Garden in the Konkan lassification system, that term being reserved for Agri and Dongri. Garden crops are grown in Rabi Bagayat lands ither by natural moisture or by irrigation from tanks and treams.

(*i*) *Natural Moisture.*

Class	Annas	Description
1	12	Where there is without doubt sufficient moisture to raise a sugarcane crop every two or three years
2	8	Where a full crop of sugarcane is not produced, or where it is grown only at regular intervals of five years.
3	4	Where sugarcane is grown only occasionally

A remark showing the classification shares in which sugarcane was grown was made in the *prati* book.

(ii) Tanks or Streams.

Class.	Annas.	Description.
1	8	Fields having an unfailing supply of water from a tank or stream which flows of itself through a *pat* and producing 1st class crops of sugarcane and plantains.
2	6	As above, but— (*a*) either the flow fails at the end of the season and the supply has to be raised to the proper level by hand; or (*b*) the supply being insufficient, only *brinjals*, onions and other vegetables are grown.
3	4	(*a*) Where the water cannot flow into the *pat* naturally, but has always to be raised by hand (*b*) Where the supply has to be raised from a well by a *rahat* or *mot* or any other machine.
4	2	Where the water is brought in *ghagars* from a private or public well, or from a tank or stream.

(*c*) *Position Class.*—In the Thana and Kolaba Collectorates all Rabi lands favourably situated for conversion into Rice had a "Position Class" added to them. Two Classes of Position were arranged as follows :—

Class.	Anna value.		Description.
	Thana.	Kolaba.	
1	4	2	All land flush with adjoining rice land which is capable of being converted to rice with little expenditure of [illegible]
2	2	1	

Land which either would require terracing or, though favourably situated, is incapable of growing rice owing to water-logging or some deteriorating factor was not classed for Position.

In the Ratnagiri Collectorate Rabi lands were not classed for Position, it having been decided by Government that, as the original classification had been declared final by Government Resolution No. 2019 of 26th March 1884, the imposition of a Position Class would be illegal as contravening the provision of

section 106, Land Revenue Code (*vide* paragraph 8 of Government Resolution No. 3619 of 4th May 1896 : SS No. CCCLXX, Mandangad Petha, p. 89)

(ii) *Varkas.*

Varkas lands are divided into two kinds, *viz.*, Bhatle and Varkas, which again were divided into two and four sub-classes, respectively, as follows :—

Kind of land	Class.	Annas	Description
Bhatle	1	6	Land with good depth of soil, usually cultivated regularly every year or capable of it and sometimes producing *tur* or capable with little labour of being made into rice land.
	2	5	When less than 1 *hath* in depth down to ½ *hath* or slightly sloping
Varkas	1	4	[illegible] or when fallow will grow the best grass
	2	3	Land sloping or flat but slightly stony, and is alternately cultivated and left fallow for grass
	3	2	(a) Land very sloping generally covered with trees and brushwood and requiring several years' fallow (b) Flat, but very stony, with red soil, on which little grass and few bushes grow.
	4	1	The steep sides of hills covered with boulders, or, if flat, the surface is nearly sheet rock, with small patches of brushwood

In classing Varkas land the depth was not taken the class assigned depending upon the surface appearance and the situation.

Position Class.—As in the case of Rabi lands in the Thana and Kolaba districts, a Position Class was assigned to Varkas lands also in these districts in accordance with the facilities for conversion into Rice This Position Class was, however, given to Pot Varkas only, *i.e.*, Dry-crop land included in Rice, Rabi or Garden survey numbers, and not to outlying Varkas.

The Varkas Position Classes were two in number and exactly the same as those adopted for Rabi lands They were applied—

(*a*) to all Pot Varkas land flush with rice land and capable of being embanked and turned into rice easily ,

(*b*) to sloping land which would have to be terraced for regular rice cultivation ;

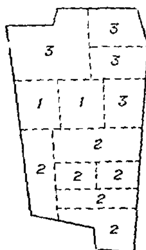
(*c*) land which, though producing a rice crop occasionally, is not true rice land ;

(*d*) to alluvial land, found on the banks of rivers and streams, but not coming under the head of Rabi.

(*Vide* Example No. 22 below.)

EXAMPLE No 22.

Varkas (before 1876).



Class	*Shares.*	*Annas.*
1	*2*	*8*
2	*6*	*18*
3	*4*	*8*
Total ..	*12*	*34*

Average Bhag annas . *2–10*
Kayam Bhag annas .. *2–6*

EXPLANATION.

The above example shews the classification system used for [illegible]

out separately and would come to 2 annas that of the next three shares on the other hand would be 3 annas 4 pies with Kayam Bhag annas 3 ; and so on.

PULAN.

Pulan lands are defined as " the sandy plains situated in the immediate neighbourhood of the sea and tidal creeks ; they are sometimes found quite bare, producing nothing ; sometimes covered with *kaju* and *undi* trees, and are generally easily converted into rice land or Agri Bagayat ". At the Original Surveys these lands had either not been classed at all or had been wrongly included in Garden numbers or classed as Pot

Varkas. At the Revision, however, they were properly distinguished and classed by Soil value according to the following scale:—

Class	Annas	Description.
1	16	Land level, low-lying and situated some distance from the sea with a fair admixture of soil in it, such as is found intermixed with Agri Bagayat lands or between rice fields.
2	10	Level sand near the sea, situated higher, with so slight an admixture of soil that it is hardly perceptible except for a yellowish or a reddish tinge it gives to the sand
3	4	Pure sand on the sea-shore or sand of the above description, but of very undulating surface with mounds and dips.

Such lands were distinguished in the *prati* books by the letter ग.

Pôt-kharab.

The kinds of Pôt-kharab taken into account in the Konkan Survey are somewhat more diversified than in the other Surveys and are as follows .—

Class of land	Description of pôt-kharab.
Rice generally ..	Embankments for retaining a water, except— (*a*) when less than 2 annas wide ; (*b*) when sown with *nagli* and other grains.
Rabi . .	Ditto.
Salt Rice . ..	The large embankments, dykes, water-channels for drainage, and places where salt water is always standing.
All lands ..	(*a*) The area of large stones and sheet rock. (*b*) Wells, houses, *nalas* or other uncultivable areas

In calculating the area of Pôt-kharab two methods were employed, firstly that of measurement and secondly that already described in the case of the Deccan (*vide* p 267), by which the area was reckoned in anna shares of a "hissa" or classification share. This latter method was used in the case of Varkas lands only.

CHAPTER VI.

THE KANARA SYSTEM OF CLASSIFICATION.

FOR purposes of classification the Kanara District was divided into two parts, *viz.*, one consisting of the above-Ghat talukas of Supa, Sirsi, Yellapur and Siddapur, and the other of the below-Ghat talukas of Karwar, Kumta, Ankola and Honavar with its petha Bhatkal.

The above-Ghat talukas.

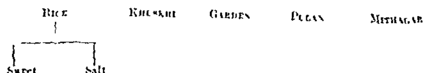
The system of classification employed in these talukas was that used in the Southern Maratha Country District already described in Chapter III, except that no *motasthal* land exists in Kanara.

The below-Ghat talukas.

While the above-Ghat Talukas partake of the same character as those of the neighbouring talukas of the Dharwar and Belgaum districts, the below-Ghat talukas, bordering as they do on the sea, have all the characteristics of the Konkan, and were, therefore, classed according to special rules which are in most respects analogous to those of the Konkan system. The settlement of the Kanarese talukas, however, owing to the unhealthiness of the climate which prevented survey work from being carried on for more than a short time in each season, was conducted in very piece-meal fashion, each taluka being settled in several batches of villages at intervals. This piece-meal method of working is reflected in the classification. Frequent changes seem to have been made in the rules from time to time, with the result that the present Kanarese Classification Rules, which were put together in 1877, do not cover all the varieties of classification to be found in the four talukas. In the description of the system given below such variations will, therefore, be noted under each of the several classes of land in which they occur. As there is nothing peculiar in the method of recording the classification in the *prati books* of this survey no examples are given.

The Land Classes.

The Land Classes of the Kanara system are as follows:—



Rice.

As in the Konkan, so in Kanara, Rice lands were divided into two main classes, Sweet and Salt.

A—Sweet Rice.

The Sweet Rice lands of Kanara have been described as follows :—"There are two sorts of Rice land, distinguished by the names *makki* and *gadde*. *Makki* consists of high level lands which are less easy to cultivate on account of the height and irregularity of their terraces and are capable of growing only inferior early varieties of rice by reason of their failure to retain moisture The hills which slope down to the coast plains are generally fringed with lands of this description, while most jungle villages consist of little else. *Gadde* lands are more or less low-lying, the lowest being further defined as *honda* On these one crop of rice is moderately certain, and not infrequently it is possible to raise a second which is termed *waingan* rice *Waingan*, however, requires more water than is usually available in this (the Kumta) taluka and pulses and vegetables more commonly succeed the monsoon crop. The former are chiefly grown without irrigation on land which retains its moisture for some time after the rice harvest; the latter generally appears in small patches close to some source of water The greater portion, however, of the rice lands produce no second crop, while even the presence of *waingan* frequently implies that the streams which feed it would frustrate any attempt at raising a monsoon crop in the same place"*

Both these kinds of Rice land were classed under the same scales, the factors of classification value taken into account being Soil, Water and Trees

(*a*) *Soil.*—The Soils of Rice lands were divided into two orders, first and second, corresponding to the division of Rice lands into Gadde and Makki.

First Order.—This comprises lands on the sea-shore, on river banks, in valleys and plains below the hills, *i e*, the Soil of Gadde Rice lands For the purposes of valuation it was divided into five classes, as follows .—

Class	Description
1.	Soil pure earth, there being so light a mixture of sand in it that it is not plainly perceptible
2.	Soil consisting chiefly of earth, but having a slight admixture of sand.

*Paragraph 40 of Mr. Maxwell's Report, No 2541 of 14th December 1910; First Revision Settlement of the Kumta Taluka.

Class.	Description.
3	Soil consisting of earth and sand in about equal proportions, the proportion of sand being so great that the soil cannot be turned up in clods.
4	Soil consisting of very little earth with a great deal of sand, the proportion of sand being so great that the soil when taken up in the hand feels as if it is of pure sand, but a slight admixture of earth in the soil gives it a reddish or yellowish colour.
5.	Soil consisting chiefly of sand in which there is so little admixture of earth that it is not perceptible. This class applies only to the soil along the sea-shore.

Second Order.—This order comprises lands on hill-sides or in more or less elevated situations; *i.e.*, the Soil of Makki Rice lands. Soil of the first class under this order was considered equal to the second class of the first order and is defined as "Land of good and fine quality, composed of pure earth and free from deteriorating faults and of full depth."

The Soil Scale for the classification of these two orders of Soil was the following:—

Class.	Annas.	First Order	Second Order.
		Depth.	Depth.
1	16	$1\frac{1}{4}$	..
2	14	1	$1\frac{1}{4}$
3	12	$\frac{3}{4}$	1
4	10	$\frac{1}{2}$	$\frac{3}{4}$
5	8	$\frac{1}{4}$	$\frac{1}{2}$
6	6	..	$\frac{1}{4}$
7	$4\frac{1}{2}$	..	..
8	3	..	..

Faults.

First Order.—The only fault taken into account was that of "Valsar"; *i.e.*, the presence of coarse gravel or grit, for which the classification was reduced in the ordinary way.

Second Order.—Three faults were allowed for in this order :—

1. *Resvat.*—An excess of sand.

2. *Valsar.*—The presence of coarse gravel or grit

3. *Utarvat* —This fault was allowed in the case of high and narrow pieces of land, difficult to cultivate.

The above are the final rules for the Soil classification of Rice lands, but owing to the reasons already given there is a certain amount of confusion in the actual classification work as recorded in the *prati* books. Thus, the distinction between the first and second orders of Soil seems to have been a late development, or at any rate to have not been understood by the classers, for both in Karwar, Ankola and Kumta lands which undoubtedly belong to the first order are constantly found entered in the *prati* books as द, *i e.*, as though of the second order, but at the same time are given the first order valuation of 16 annas. The faults also seem to have been improperly understood or if not then carelessly shewn Thus, it is very common to find diagrams such as the following :—

2	v	2	v
$1\frac{1}{4}$	द4	$1\frac{1}{4}$	द4
3	v	3	v
1	द3	$1\frac{1}{4}$	द4

in three compartments of which either the fault shewn has been ignored in working out the class according to the Soil scale, or else the land has been treated as first order though shewn as second. It is not possible now to say without re-classification whether a mistake has been made in shewing the fault or whether the class is wrongly calculated. The fact that, as explained above, no distinction is often made between the first and second orders of Soil—all being entered as द—complicates matters considerably, for, under the Kanara Rules, in the 1st order of Soil the classes are graded by definition according to the proportion of earth, sand not being considered technically as a fault, whereas in the second order sand is a fault and is required to be shewn in the ordinary manner by the conventional sign. As it is, in lands undoubtedly of

the first order प may be read for द without altering the class, but in lands of the second order it must be presumed either that the fault s wrongly entered or the class wrongly calculated.

The result of this carelessness is that much of the Makki Rice lands have had to be re-classed owing to the mistakes on the original work.

(b) *Water.*—As in the Southern Maratha Country, the varieties of water-supply were divided into five classes, according to whether the supply is derived from a source of irrigation or from surface drainage or a combination of both.

Class — Description.

1. Water-supply received throughout the year by natural flow and giving two rice crops—*tari* and *waingan*—or a good crop of sugarcane.

   Fault.—A reduction of one class was made for proximity to and liability to injury from salt water.

2. (a) Water-supply received by natural flow until the end of January, giving one rice crop and an after-crop of grain or vegetables.

   (b) When sufficient moisture remains in the soil to give a second green crop after rice.

   Fault.—For proximity to salt-water as in the first class.

3. (a) Low-lying land, producing a certain rice crop without irrigation, water being received from higher ground by drainage.

   (b) Water close to the surface and easily obtainable in *kacha* wells, so that occasional sugarcane crops can be grown.

   Fault.—Half a class reduction for proximity to salt water.

4. Somewhat elevated land, producing one rice crop without irrigation, but having the advantage of surface irrigation from higher ground.

5. High land without irrigation or drainage, producing one rice crop precariously.

6. Was assigned to *pulan* and *gazni* lands only.

When water was obtained from a *nala* or tank, a reduction of half a class or one class was made from the class assigned to the water received by natural flow according as the depth of the lift was more or less than 1½ yards.

When the water was obtained from a *pakka* well a further reduction of half a class was made.

As in the Deccan, half classes were shewn as 6 pies, *e.g.*, class 1½ appears as 1 anna 6 pies, and so on.

(c) *Tree factor.*—An addition—technically called "Narali" (coconut) *chad*—was made to the Soil annas and Water class of Rice lands in which scattered coconut trees existed, according to the following scale :—

Coconut trees per acre		Decrease to be made. On soil classification.	Decrease to be made. On water classification.
20 or over 20 trees	..	2 annas	6 pies.
From 15 to 19 trees	.	1 anna	6 pies.
,, 10 ,, 14 ,,	.	2 annas	....
, 5 , 9 ..	..	1½ annas	....
,, 3 ,, 1 tree	..	1 anna	....

Under 3 trees per acre, no increase.

B—Salt Rice.

The *gazni* of Kanara is the *Kharapat* of the Konkan. Such lands are liable to overflow by salt water and grow only salt rice, of the kinds known as "*kungha*" and "*kungha*". The factors of value taken into account in classification were Soil and Water.

Soil.—The Soil of *gazni* lands was divided into three classes in accordance, not with depth or quality, but situation. They were classed under the 4th, 5th and 6th classes of the Sweet Rice Soil scale, *i e.*, with anna valuations of 10, 8 and 6 respectively. The three classes are as follows :—

Class.	Anna value		Description.
4	10	..	Lands far up the creeks, having embankments little liable to injury from the tides.
5	8	..	Land liable to flooding by the tide, but owing to favourable situation quickly left bare. Embankments liable to injury.

Class.	Anna value.	Description.
6	6	.. Land close to the sea and quickly inundated, the embankments being very liable to injury.
		Faults.—A fault of one or half a class was given on account of small streams and running water when no reduction had been made on their account as *kharab.*

Water.—The Water classes were the same as the Soil classes, *i.e.*, Soil of the 4th Soil class was assigned the 4th Water class, the 5th and 6th Soil classes the 5th and 6th Water classes. When the Soil classification was reduced, the Water class was reduced also.

KHUSKHI.

"Khuskhi" is the Kanarese for Dry-crop and this class of land corresponds to the Rabi and Varkas of the Konkan. The only factor of classification value was Soil, which, according to the rules, should be classed on the Rice Soil scale as Soil of the second order. In practice, however, the classification of Khuskhi seems to vary with the individual classer employed. In parts of Karwar, Kumta and Ankola the full depth is taken as 1¾ *haths* according to the Southern Maratha Country Rules; in parts it is 1½ *haths* according to the Kanara Rules. In Honavar, however, the latter rules have for the most part been closely followed.

GARDEN.

The Garden lands of Kanara approximate to those of the Konkan, growing in the best gardens *suparis* or cocoanuts, and in the inferior, plantains or mixed crops of vegetables. There is this difference, however, that, whereas in the Konkan Survey Garden land is divided into two classes, Agri and Dongri, with separate maximum rates, no such difference was recognized in the Kanara Survey, though actually existing in the field. Both types were classed under one and the same scale, the first two classes covering the class of Garden corresponding to the Agri of the Konkan and the second two to Dongri.

The factors of value taken into account at classification were Soil, Water and Position.

(a) *Soil.*—Four classes of Soil were recognized and classed at the anna valuation given in each case :—

Class.	Anna value.	Description.
1	16	.. Soil pure earth, or a mixture of sand and earth in equal proportions. Depth $1\frac{1}{4}$ *haths.*
2	14	.. (a) Soil consisting of earth and soil but in which the proportion of earth is small and its presence only shewn by the reddish or yellowish tinge of the soil. Depth $1\frac{1}{2}$ *haths.*
		(b) Soil on the sea-shore consisting of pure sand.
3	12	. Lands on the slopes of hills, but the slopes moderate, or, if steep, cut into well defined terraces under the trees.
4	10	.. Lands on slopes of hills not cut into terraces, the coconut trees growing directly on the natural slope of the hill.

Faults —In classes 1 and 2, where the depth was less than $1\frac{1}{4}$ *haths*, and the hardness of the sub-soil prevented the roots of the trees penetrating below the depth of the superficial soil, a reduction of one class was made.

(b) *Water.*—The water-supply of Garden lands was divided into seven classes, the first three of which relate to lands either irrigated from tanks or *nalas* or growing garden crops by natural moisture, and the last four to lands irrigated by hand from wells.

Class.	Description.
1.	(a) Water received by natural flow from a *nala* or tank, the supply lasting throughout the year. Where the supply was received by a lift not exceeding $1\frac{1}{2}$ yards in height a reduction of half a class was made. If exceeding $1\frac{1}{2}$ yards, then a whole class reduction was made.
	(b) Land in such moist situations that *supari* and coconut trees grow well without irrigation.
2.	(a) Water received by natural flow from a tank or *nala*, the supply lasting till the end of February. A reduction was made for the use of a lift as above.

Class.	Description.
	(b) Land in such moist situations that *supari* or coconuts will grow well without irrigation, but situated on elevated places or very inaccessible places among the hills.
3.	The third class consists of 2nd class water-supply reduced for the use of a lift.

In the case of classes 4 to 7 the valuation was made to depend upon the depth of the well and the distance from the land irrigated as follows :—

Depth of well in yards.	Distance in chains of well from land under irrigation.		
	Under 5 chains.	Under 10 chains.	Over 10 chains.
Under 5 yards ..	4th	5th	6th
Over 5 ,, .	5th	6th	7th

If the water had to be conveyed up a steep slope the class was reduced by one.

(c) *Position.*—The Position Class of the Kanara Survey is of the same type as that of the Konkan and took account of the relative advantages of fields with respect to their supply of natural moisture. It was not, however, given an anna valuation, as in the Konkan, but was merely taken into account by the Survey Officer at the time of fixing the rate for the garden according to the system referred to below :—

Three classes of Position were recognized as follows :—

Class.	Description.
1.	Gardens in low and level situations, where the natural moisture of the soil is good, that is, in situations similar to where rice lands would bear the 3rd Water class.
2.	Gardens in level situations, but where the natural moisture of the soil is less in consequence of the soil being hard and water only found at a greater depth.
3.	Gardens adjoining or on the slope of hills where the trees will not flourish without being watered freely in consequence of there being no natural moisture of soil.

The Position Class was shewn in the *Bagayat Takta* below the Water class as $\frac{3 \text{ Water class}}{1 \text{ Position}}$.

In the *Bagayat Takta* was also entered full details—

(*a*) regarding the well, if any, whether *pakka* or *kacha*, the depth to water, the quality of the water, and, if other numbers had a right to a share, then to what extent;

(*b*) the number of trees, with special reference to coconuts and *suparis*. As in the Konkan, these kinds of trees were divided into three classes, *viz.*, bearing (*bardar*), young trees (*umedvar*) and seedlings (*rops*). Where trees were very far apart and it was difficult to decide what should be considered *bagayat*, the rule was that all trees standing at within a distance of two chains were to be taken as standing on one piece of *bagayat* land, and the boundary of this area was to be fixed at a distance of half a chain from the outermost trees of the group standing on it.

The foregoing is the technical system of classification employed in the case of *bagayat* lands. But, just as in the case of *pàtasthal* in the Deccan, so in Kanara the real classification was performed at the time of fixing the rates of assessment and in the same manner. In both cases the rate for each garden was fixed by the Superintendent personally after inquiry on the spot, and not, as in that of other classes of land, by applying a pre-determined *jantri* to the classification. The actual field classification was, in fact, merely a guide to the Superintendent as to what the rate should be, and fields of the same classification according to the *prati* books were by no means necessarily assessed at the same rates.

The system of assessment is described on p 390.

Pulan

As in the Konkan, *pulan* is defined as " the soil of such level sandy plains as are in the immediate neighbourhood of the sea and to the earthy soil formed by alluvial deposit, such as flat level plains in the vicinity of rivers or islands in rivers ".

The factors of classification value were Soil and Water.

Soil.—The Soil classification was done according to the scale for *tari*.

Water.—The 6th Tari Water class only was applied in the case of *pulan*.

As in the case of *khuskhi*, so in that of *pulan*, where scattered fruit-trees existed, their number was carefully counted and all land containing trees situated within two chains of each other was treated as *bagayat*.

Mithagar.

This class of land is that employed for use as salt-pans. In these circumstances it was not susceptible to direct classification, but as it was necessary to ascertain the value it would be if it were not *mithagar*, the classification was entered from an average taken of the classification of surrounding numbers.

CHAPTER VII.

THE DISTANCE FROM VILLAGE SCALE

THE *raison d'être* of the Distance from Village Scale has been explained in detail in Part I (*vide* p. 97) Briefly its use was to take account of the factor of "situation" as entering into the relative value of fields. This situation is of two kinds, *viz* —

(*a*) Situation relatively to other fields in the same village according to proximity or distance from the village site.

(*b*) Situation relatively to other fields in other villages, those situated in large villages being, *ceteris paribus*, more valuable than those in small villages.

This factor was taken into account in the Deccan, Gujarat and Kanara Surveys only, and that only in the case of Dry-crop lands (*khushki* in Kanara).

A.—THE DECCAN SYSTEM.

In the Deccan Survey two methods of making the necessary allowance were employed: one before and the other after 1877.

Before 1877 —By this system the Soil classification annas of the whole survey number were increased or reduced for distance from the village site according to the following scale :—

Distance from site	¼ mile		½		¾		1	
Bhag annas	Addition to Bhag annas							
	As	p	As	p	As	p	As	p
16—10	1	0	0	6				
9—5	0	6						
below 5								

Bhag annas	1¼—1½		1½—2		2½—3		3—4		4	
	Reduction on Bhag annas									
	As	p	As	p	As	p	As	p	As.	p.
16—12	1	0	1	6	2	0	2	6	3	0
11—8	0	6	1	0	1	6	2	0	2	6
7—6	0	3	0	6	1	0	1	6	2	0
5—4			0	3	0	6	0	0	1	0
below 4										

After 1877. —The effect of the system employed after 1877 was the same as that of the system described above, *viz.*, to raise the assessments of numbers close to the village site and to reduce that of those at a distance, but the method of achieving this result was different.

(1) The allowance for actual distance from the village site was made by making additions to and subtractions from the normal assessments at the time of framing the

Dry-crop *jantri*. A detailed description of this somewhat complicated document is given on p. 391.

(ii) The allowance for situation due to the character of the village itself was made by making the additions for proximity proportionately larger and the reductions for distance proportionately smaller in the case of important than of unimportant villages. For this purpose a certain number—usually 4—of so-called "*jantri* classes" were arranged, chiefly on considerations of population, but also with reference to proximity to, or possession of, a market, and similar facts at the discretion of the Superintendent. The amount of increase or reduction in the assessment for distance was then varied in the Dry-crop *jantri* according to the particular "*jantri* class" into which the village fell, as will be seen by an inspection of the *jantri* referred to above.

B.—The Gujarat System.

In Gujarat the same result was effected, not by making additions to or subtractions from the Soil annas or by the use of a *jantri*, but by raising or lowering the maximum rate by so many annas in the rupee according to a distance scale, the increase for proximity being proportionately larger and the decrease for distance proportionately smaller in the case of important than unimportant villages. A variety of such scales was employed according to circumstances. Those used in the Olpad taluka of the Surat district, for example, were as follows :—

Number of scale	Distance from village site and additions or reductions on maximum rate.										
	¼ mile	½ mile	¾ mile	1 mile	1¼ mile.	1½ mile	1¾ mile	2 miles	2¼ miles	2½ miles,	2¾ miles and over.
	As p.	As p.	As p	As. p	As p	As p	As p.	As p	As. p	As p.	As. p.
IV ..	+ 2 6	+1 6	+0 6	−0 6	−1 0	−2 6	−3 0	−3 6	−4 0	−4 6	−5 0
III ..	+ 2 0	+1 0	∓0 0	−1 0	−2 0	−2 6	−3 0	−3 6	−4 0	−4 6	..
II ..	+ 1 0	±0 0	−1 0	−1 6	−2 0	−2 6	−3 0	−3 6	−4 0	..	..
I ..	±0 0	−1 0	−2 0	..	..	..	..	..	..	..	..

These four scales were applied generally upon the basis of population as follows :—

Scale.		Applied to
I	..	Villages with less than 100 inhabitants.
II	..	Villages with from 100 to 500 inhabitants.
III	..	Villages with from 500 to 1,500 inhabitants.
IV	..	Villages with from 1,500 or more inhabitants.

Thus, in a village with 550 inhabitants and a Dry-crop maximum of Rs. 3 a field situated at a distance of $1\frac{1}{2}$ miles from the village site would be assessed at an actual maximum of Rs. 2-8-6.

C—The Kanara System.

The Kanara system differs somewhat from those of the Deccan and Gujarat owing to the fact that there are in many places in this district no distinct village sites, the houses of cultivators being situated in the fields. Distance, therefore, was reckoned from the house of the owner of the survey number or from the village site, whichever was the nearer. Again, on account of the way in which houses are often scattered, it was found necessary to define a "Village site" as—

(a) all houses within 10 chains distance from one another;

(b) any number of houses from four and upwards situated above 10 chains distance from such site.

This "distance" factor was provided for in the Dry-crop *jantri* which was of the Deccan type.

CHAPTER VIII.

SETTLEMENT PROCEDURE.

PROCEDURE at Settlement may be divided into the following heads, *viz.*—

1. Preliminary.
2. The submission of Settlement proposals.
3. The introduction of the Settlement.
4. The calculation of the assessment.
5. The preparation of the Settlement registers.

The first three subjects are dealt with in the present chapter, and the fourth and fifth in Chapters IX and X respectively.

1. PRELIMINARY.

(*a*) Under the present orders of Government the Settlement Commissioner is required to report to the Commissioners of Divisions before 31st July in each year the names of the talukas in their divisions the current Revenue Settlement of which expires on 31st July three years later (Government Resolution No R. 5545-22).

(*b*) For the purpose of revising assessments of these talukas an officer is selected to prepare the proposals, who is appointed a Survey Officer under section 18 of the Land Revenue Code and, in the travelling season following the Settlement Commissioner's Report, should thoroughly visit the tract to be reported upon. (Government Resolution No. 800, dated 2nd February 1900.)

(*c*) An officer so appointed should be either an Assistant Collector or a member of the Provincial Service, of whom—

(*i*) an Assistant Collector appointed exclusively on this duty may be granted a special allowance of Rs. 100 per mensem, if Government are satisfied that while so employed he has to undergo exceptional exposure or incur exceptional expenditure;

(*ii*) an Assistant Collector doing this work in addition to his ordinary revenue duties may be granted an allowance of Rs. 50 per mensem;

(*iii*) an officer of the Provincial Service may be granted an allowance of Rs. 50.

(Government Resolution No. 2486, dated 10th March 1911.)

2. The Submission of Settlement Proposals.

(i) *The Principles of Revision.*

(*a*) In putting forward proposals for the new rates the Settlement Officer is to be guided by the principles laid down in the "Instructions for Settlement Officers," issued under the authority of Government Resolution No. 9623 of 22nd October 1910. These instructions are as follows.—

Instructions for Settlement Officers.

1. The Settlement Officer who has to revise the settlement of a taluka will find, when he approaches the task, that in the Original Settlement the taluka has been divided into groups homogeneous as to physical characteristics and economic advantages, such as climate, rainfall, general fertility of soil, communications and the like. For the villages contained in each of these groups uniform maximum rates have been fixed, from which the assessment for each field or survey number is deduced by reference to its soil valuation.

2. The problem for the Settlement Officer is to revise the old maximum rates and to fix upon a new set of maximum rates for each group in the taluka, and the purpose of this note is to lay down in broad outline the lines of enquiry which a Settlement Officer should follow in order to acquire the knowledge and information which will enable him to formulate his proposals.

3. It is necessary for him to first ascertain to the best of his ability what is now the incidence of the existing assessments on the profits of cultivation. Conclusions on this point may be reached along two main lines of enquiry—an indirect line and a direct line.

4. The indirect line of enquiry will afford circumstantial, but none the less convincing, evidence of the incidence of the assessments by revealing their general effect on the economic and agricultural condition of the tract. The Settlement Officer will carefully examine the past revenue history of the taluka group by group. He will enquire whether the area under cultivation and occupation has expanded or contracted, whether the assessment has been collected with ease or not and whether the material condition of the people is prosperous or the reverse. He will pass under review the markets and communications of the tract, the history of the prices of its main staples and the statistics of selling and letting and mortgage values of the land.

5. The Settlement Officer has now at his disposal in the Record-of-rights a large amount of detailed information as to sales, mortgages and leases at various periods during the currency of the expiring settlement, which will enable him to judge with some confidence what development, if any, there has been in land values since the last settlement. In examining the statistics of sales and mortgages, it is hardly necessary that he should study and tabulate the figures of every village in the taluka. A close examination of the statistics of representative villages in different parts of the taluka will enable him to form just conclusions as to the development of land values in the taluka as a whole and in its various component groups.

6. The statistics for various periods, *e.g.*, the beginning, the middle and the end of the settlement period, should be compiled in some such form as that given in Appendix I.* In compiling the statistics the Settlement Officer will, of course, be careful to exclude transactions which appear to be only nominally sales or mortgages, *e.g.*, sales which are accompanied by verbal agreements that the vendor shall on re-payment of the sale money be restored to his original position as owner of the land.

Similarly, transactions affecting *inams* or revenue-free land should be excluded from consideration.

7. After such a general review the Settlement Officer will be able to reach broad general conclusions as to the effect of the existing assessments on the economic condition of the tract. If he finds that the tract has prospered, he may conclude that, judged by this standard, the assessments were and are reasonable and moderate, and he may also be led by other general considerations to conclude that they might reasonably and safely be enhanced. On the other hand, his view may lead him to an opposite conclusion that the assessments should be reduced or at any rate left unaltered.

8. The Settlement Officer will then be confronted in each assessment group with the problem as to what should be the limit of enhancement or reduction as the case may be. The history of prices would be an important factor, but it would not always be easy or possible to deduce from the ratio of price increase what should be a reasonable or safe ratio of enhancement of assessment.

* Not printed Incorporated in Appendix G to the Settlement Report.

9. The Settlement Officer will now endeavour to check and supplement his general conclusions by a direct line of enquiry which would aim at ascertaining the prevailing rents, and observing the ratio of incidence of the assessment upon them.

10. Rents may be divided into two classes—produce rents and cash rents.

Produce Rents.

(*a*) Rents consisting of a fixed amount of produce. The money equivalent of such rents is easily ascertainable.

(*b*) Rents consisting of a definite share of the gross produce—commonly one-half.

In order to find the money equivalent of such rents the Settlement Officer should ascertain to the best of his ability the average local yield *per* acre of each crop for which produce rents are commonly taken. For this he will rely partly upon recorded crop experiments, partly upon crop experiments conducted by himself and partly upon enquiries as to the average outturn on normal soils under normal conditions. The Settlement Officer in Bombay has the unique advantage of a detailed soil classification of every field, which tells him the range of soils prevailing in every village and every assessment group. The people themselves know very well what this outturn is, and a Settlement Officer who keeps his eyes and ears open and makes judicious enquiries will usually be able to ascertain it especially in tracts where produce rents are common.

11. The next factor for investigation is the actual share of the gross produce commonly received by the landlord. The landlord's rent is usually expressed in some simple fraction—one-half or one-third of the gross produce—but it will often be found on enquiry that the landlord's actual receipts fall considerably short of these fractions. The landlord may have to meet a share of customary payments to village menials or for charitable purpose ; or he may have defrayed some of the cost of production, *e.g.*, the cost of seed or manure or weeding or irrigation, and the deductions necessary on these accounts may reduce his rent to a level much below its apparent figure.

12. When the actual quantity of the produce rent has been ascertained, it is not difficult to determine its money value by reference to prevailing prices and to compare it with the assessment.

Cash Rents.

13. In the case of cash rents as in the case of produce rents, the Settlement Officer will have to make careful local enquiries—village by village and group by group—in order to ascertain the prevailing rents for land, which is fair average sample of its class. He will have to exclude abnormal rents, *e.g.*, rents paid by mortgagor-tenants. which are not true rents but merely repayments of capital and interest under the guise of rent. He will have to enquire whether the rents are correctly recorded, whether they are paid in full and with regularity. In enquiring whether the land-paying rent is a fair sample of its class, he will be assisted by the detailed classification record.

14. Detailed figures of cash rents should be extracted from the Record-of-rights for each village in the form shown in Appendix II* and the totals tabulated for villages and groups giving the year and term of each rent (R.U.O. 9226-B of 4-10-27).

In tabulating these statistics the system of indices derived from the average figure for rent expressed in multiples of the assessment should be employed. This system was first used in the second revision settlement of Belgaum taluka, and Chandgad mahal and is explained in paragraph 29 of the report as follows :—

"Rents are already expressed in multiples of the assessment, but even in this form they are useless for comparing villages of different groups, because the factors differ of which they are multiples. If, however, the sum is completed and the rate of assessment multiplied by the multiple a standard is obtained by which every village in the Presidency could be compared. For instance suppose that in one village rents are three times the assessment; and the maximum rate is one rupee; then the rent of 16-anna land is presumably three rupees; if in a village of another group rents are four times the assessment and the maximum rate is Rs. 1-8-0, the rent of 16-anna land will be Rs. 6; and the advantages of the second village are presumably twice those of the first. In my own calculations, I have taken 8-anna land as the basis for two reasons; first because it lets as a rule for more nearly the average rent of the village lands at the extremes usually letting for more or less in proportion than the anna classification would indicate. Secondly,

* Not printed. Incorporated in Appendix II to the Settlement Report.

without going into the question of how closely net rent approximates to economic rent, the two are probably not far apart; if half the economic rent is to be the limit of assessment, the net rent of 8-anna land affords a guide as to what the maximum rate of assessment should be, because it is in fact half the rent of 16-anna land."

Thus the index for each village was found by taking the assessment per acre on land of 8 annas soil valuation in the village and multiplying it by the figure expressing rent in multiples of assessment for that village, the result being expressed in rupees and annas (R—6958 and 6959-19)*.

15. But the Settlement Officer should constantly bear in mind that statistics of rents, whether in kind or in cash, cannot be used as the basis for definite conclusions as regards the general incidence of the assessments in a village or group, unless they exist in considerable volume and unless their reliability has been carefully tested.

16. This analysis of rents and comparison of them with the assessments will give the Settlement Officer fairly definite ideas of the profits of cultivation in various villages and groups in the taluka and of the ratios of incidence of the assessment on those profits. It will also give him information as to the existing distribution of the assessment over the various groups of the taluka, which will be of great value to him if he should wish to make any re-distribution or re-adjustment of the burden of the assessment over the various groups of the taluka.

17. The Settlement Officer will now be in a position to formulate his final proposals. He has first of all on broad general considerations reached certain broad general conclusions as to the direction the Revision should take in each group. He has then examined the rents and compared them with the existing assessments in order to get more definite and detailed knowledge of the incidence of the existing assessments.

This knowledge now enables him, if he is proposing enhancements, to make the enhancement in each group and each maximum rate with a proper regard to the existing incidence of the assessment. Thus, if there are two groups A and B and in A the ratio of existing assessments to rents appears to be 40 per cent., while in B it appears to be 25 per cent., it will be necessary (other things being equal) to propose enhancements

* The words "net rent" here mean rent as entered in Appendix H to the Settlement Report, that is to say the landlord's net profit plus the assessment.

for group A with much greater caution and circumspection *than in group B.*

And the Settlement Officer should always record, for the information of Government, what he considers to be the ratio of incidence of his proposed assessments on the rents as ascertained by him.

18. It must, however, be clearly understood that the arguments for enhancements should be based primarily on the indirect evidence of the general considerations referred to in *paragraph 4 above*, and that *the rental statistics* should be employed only as a check to prevent the enhancement from going too high and as a guide to secure a proper distribution of the assessment between the various groups.

(*b*) By Government Resolution No. 519, dated 22nd January 1895, the attention of Settlement Officers is invited to 'the great importance of the closest personal consultation practicable among the officers concerned, whether in the framing or in the criticism of settlement proposals, more especially before they are actually formulated, as a means of reducing

[illegible]

(*c*) It has further been ordered that "in all cases in which irrigation takes place with water stored by the Irrigation Department or is assisted by work carried out by that department, its officers should be consulted as to the rates of assessment. They are in the best position to judge of the supply of water, which is *the basis of the consolidated rate*". (*Government Resolution, No. A-1015, dated 28th January 1897.*)

(*i*) (*a*) Local publication of the Settlement Report.

As soon as the Settlement Officer [illegible]
report he should send to the [illegible]
advance copy, together with all [illegible]
scrutiny. As soon as Settlem[illegible]
that the report is in order and may go forward, appendices to the settlement report should be sent by the settlement officer direct to the Press and should be printed with the headings and the names of villages in vernacular as well as English. To save the cost of reprinting, these same appendices should be attached to the report when finally printed. Apart from the headings and names of villages, the appendices consist almost entirely of figures; these figures need not be rendered into the vernacular. (In a very few cases remarks are appended.) These

remarks need not be translated unless the Settlement Commissioner so directs). The Settlement Officer should also prepare a brief precis of the report bringing out in brief all important facts and reasons for the proposed alterations. It is laid down that the length of the precis should be neither more nor less than 1/10th of the full report. Of some sections it will be more than 1/10th, of others less; and many paragraphs will not be reproduced in the precis.

When the report and the precis are approved by the Settlement Commissioner a copy of the report together with a printed copy of the vernacular translation of the precis and the printed appendices should be deposited in the Mamlatdar's kachery for inspection of the public. At the same time a copy of the appendices and vernacular precis should be published along with the notification of settlement in each and every village of the taluka under settlement. Number of copies to be printed of the appendices and vernacular precis will depend upon the number of villages in the taluka under settlement, and in addition to this number some more copies should be printed for distribution to applicants, on payment. (R—8686/24 of 31st October 1927.)

Such statistics have their greatest utility, as tests of conclusions regarding grouping and rating derived from these general considerations (R—6958 and 6959-19).

(ii) The Preliminary Notification.

As soon as he has worked out his Revision of groups and rates, the Settlement Officer has to forward to the Collector a notification in the vernacular of the district in the form given on the next page, which was sanctioned by Government Resolutions, No. 12161 of 7th December 1914 and No. 344 of 11th January 1915. It is the duty of the Collector to have a copy of this notification posted up in each village of the taluka under settlement with a notice that the Collector will, for a period of two months, be prepared to receive objections to the proposed rates if made in writing by the Revenue Patel. Such objections are to be forwarded by the Collector to Government through the Settlement and Divisional Commissioners and will be taken into consideration at the time of giving sanction to the proposals (Government Resolution, No. 7447, dated 21st October 1886, as modified by Government Resolution No. 519, dated 22nd January 1895.)

PRELIMINARY NOTIFICATION OF SETTLEMENT.

It is hereby made known to the people of the undermentioned villages of Taluka , District that the revision of the survey assessment of the lands of the said villages is about to be effected and that it is proposed to divide the said villages into the following groups, the existing and proposed maximum rates of each village being as shown against its name in the following list :—

Number	Name of Village.	Number of group	By former settlement.			By revision settlement		
			Maximum rates			Maximum rates.		
			Dry-crop.	Rice.	Garden	Dry-crop.	Rice.	Garden.
1	2	3	4	5	6	7	8	9
	Group I							
	Group II							
	Group III							

Reasons for alteration in the rates :—

Reasons for alteration in the grouping :—

The result so far as the village of is concerned is that the rates in the village are raised/lowered by annas in the rupee.

A copy of the Settlement Officer's report together with printed appendices and vernacular precis have been deposited in the office of the Mamlatdar of . . . . . . and are open to the inspection of any one interested.

For a period of two months from the date of publication of this notification the Collector will be prepared to receive objections made by any village community to the proposed grouping of their village and the maximum rate thereof, which objections must be presented in writing by the revenue patel of the village as the representative of such village community.

The subjects generally dealt with under heads (iii) and (iv) and the sources from which the necessary information with reference thereto is obtained are the following :—

Head (iii)—Climate, general condition of the people and resources.

	Subject.	Source of information.
1.	Climate ..	Personal observation and local inquiries.
2.	Rainfall ..	Appendix A.
3.	Cultivation and crops	Appendix B.
4.	Modes of husbandry	As. 1.
5.	Communications—railways, roads and ferries.	As. 1.
6.	Markets and fairs	As. 1.
7.	Imports and exports ..	From the Railway and Customs authorities.
8.	Manufactures	Appendix E.
9.	Industries	Appendix E.
10.	Population ..	Appendices C and M.
11.	Schools and education	From Educational authorities.
12.	Health ..	From the Mamlatdar.
13.	Live and dead stock	Appendix D.
14.	Water-supply	Appendix F.
15.	Value of land as ascertained by	
	(a) sales ..	Appendix G.
	(b) leases ..	Appendix H.
16.	Results of crop experiments	Revenue authorities or printed reports.
17.	Prices ..	Appendix I.
18.	Wages ..	The Mamlatdar and personal inquiries.

Head (iv)—Revenue History.

	Subject.	Source of information.
19.	Explanation of variations in occupied area and revenue.	The Mamlatdar.
20.	Remissions—casual or permanent.	The Mamlatdar.
21.	Revenue collections ..	The Mamlatdar.
22.	Coercive measures for recovery of land revenue.	The Mamlatdar.

(c) *The Statistical Appendices.*

The statistical appendices to be attached to the report—14 in number—are as follows, the forms of the appendices together with any special orders as to the way in which they are to be drawn up being given in Appendix VI :—

Appendix.	Subject.	Source of information.
A	Rainfall ..	. The Director of Agriculture.
B	Cultivation and crops ..	The Mamlatdar.
C	Population according to occupation.	The Director of Agriculture.
D	Agricultural stock ..	The Mamlatdar
E	Shops, industries, etc. ..	Do.
F	Wells, tanks, *bhudkis* and sources of water-supply.	Do.
G	Ordinary sales ..	To be prepared by the Settlement Officer from the Record-of-rights.
H	Leases	To be prepared by the Settlement Officer from the Record-of-rights.
I	Prices	The Director of Agriculture.
J	Changes in occupied area . ..	The Mamlatdar.
K	Revenue Settlement ..	The Mamlatdar.
L	Effect of Revision Settlement proposals.	
M	The population and the area and assessment of Government unoccupied land.	The Mamlatdar.
N	Reference to papers regarding the expiring Settlement.	

The Settlement Report in this form is to be submitted to Government through the Collector, the Settlement Commissioner and the Divisional Commissioner. The period of submission of settlement reports is fixed at three years before the expiry of all settlements and the officers should keep to the following time table :—

By the Settlement Officer to the Collector .. .. Before 1st August.

By the Collector to the Settlement Commissioner .. .. Before 1st January.

By the Settlement Commissioner to the Divisional Commissioner.. Before 1st July.

By the Divisional Commissioner to Government .. .. Before 1st January.

(R. 5545 dated 3rd August 1922.)

The passage of settlement reports through the Settlement Officers and Collectors' Offices is to be watched by the Settlement Commissioner and Director of Land Records, cases of excessive delay should be immediately brought to the notice of Government.—R. 201/24 of 13th December 1924.

On receipt of the report and a consideration of the opinions of the various officers through whom it has passed and also the petitions of objection, if any, Government issue orders—

(*a*) either sanctioning the proposals or making such modifications in them as may seem fit;

(*b*) fixing the date of introduction,

(*c*) determining the period of guarantee.

As regards—

(*b*) the date of introduction—the orders are that Revenue Settlements should invariably be introduced between the 1st August and the date of the 1st instalment of Land Revenue (Government Resolution No. 1447 of 27th February 1901);

(c) the period of guarantee—the usual term is thirty years, which is also under section 102, Land Revenue Code, the maximum period permissible in the case of lands used for the purpose of agriculture alone, but, subject to this maximum any period may be fixed by Government according to circumstances. In R. 6441-16 (paragraph 4) Government discussed the 30 years' settlement period and were not prepared to depart from the practice of guaranteeing settlements in the Presidency proper for a period of thirty years. In R. 6958-19 (paragraph 10) Government again rejected strongly supported proposals to modify the period.

3. THE INTRODUCTION OF THE SETTLEMENT.

Previous to the amendment of the Land Revenue Code by Act IV of 1913 the introduction of the settlement, under the provisions of section 103, was performed by the *announcement* on the spot of the revised assessment of each survey number.

By the same section of the revised Code, however, the settlement is deemed to have been introduced "when the levy of the assessment fixed under sections 100 and 101 upon any land has been sanctioned under section 102 and notice of the same has been given in accordance with rules made in this behalf". The rule providing the form of notice to be given is Rule 17 under section 214 (g). It is to consist of firstly a notification to be published in the district to which the settlement extends and secondly a notification in the *Government Gazette.*

(a) *The district notification.*—This is to be published in form A to Rule 17 of the Land Revenue Rules.

(b) *The notification in the Gazette.*—This is to be made in the form given below. The publication of such a notification is not however an essential step towards the introduction of a settlement under section 103—Government Resolution, No. 557-B of 9th May 1932 —

No. .—Whereas Government have sanctioned the assessments fixed by the , in the case of such lands as are now actually used for the purpose of agriculture alone, and in the case of unoccupied cultivable lands but excepting lands classed as pot kharab, within the villages hereinbelow mentioned in the taluka of the district, and whereas notice of such sanction has been given in accordance with the provision of section 103 *of the Bombay Land Revenue Code,* 1879, *and the Revision Survey Settlement has thereby been introduced into the said villages: now, in exercise of the powers conferred by section* 102 *of the said Code, the Governor in Council is pleased to declare all the assessments above referred to, fixed for a term of years, commencing with the Revenue year of and ending with the Revenue year of :—*

Serial No. *Name of village*

Serial No. *Name of village*

As will be seen from the terms of the second notification the assessments so fixed are those "of such lands as are now actually used for the purpose of agriculture alone and of unoccupied lands". Lands used for a non-agricultural purpose are thereby excluded from the settlement and the survey guarantee does not apply to them. Further, by the first notification the power is retained of levying an extra cess for water in the case of those lands which may "hereafter" obtain a new or increased water-supply by the use of water the right to which vests in Government.

Concessions to occupants.—Two concessions are secured to occupants by law under section 104 of the Land Revenue Code :—

(*a*) Under the first paragraph of that section the difference between the old and revised assessments is to be remitted in the year in the course of which a settlement, original or revised, may be introduced. By " this year "—as has been ruled by Government Resolution No. 2973 of 5th May 1903—is meant the first year of the new settlement.

(*b*) By the last paragraph of this section an occupant who is dissatisfied with the new rates may, in the year next following—*i.e.*, the second year of the introduction of the new settlement—resign any survey number or sub-division held *by him on notice given before the 31st March and on doing* so will receive remission of the increase imposed by the revised assessment.

In addition, concessions to occupants are granted under the Igatpuri or other similar rules (*vide* Part I, p. 152). Under standing orders these concessions are to be extended to all talukas in which revision settlements are introduced (Government Resolution No. 5396 dated 10th June 1914) but having been promulgated solely under the executive orders of Government they may be withdrawn at any time.

Printing of Settlement Reports.

Regarding the printing of the Settlement Report correspondence, the orders are that all reports relating to the revision of assessment are to be printed as selection in foolscap size. The present practice is that, when a settlement officer has prepared his report and appendices, he shall submit them in duplicate to the Commissioner of Settlements, who will forward one copy forthwith to the Superintendent, Government Printing and Stationery, and will at the same time inform Government that he has done so. The Superintendent should arrange to get the report (with appendices) printed finally, after the proof has been approved by the Commissioner of Settlements and also after the Superintendent has ascertained the requirements of Government in each case. Copies of the remarks of the Collector, the Commissioner of Settlements and the Commissioner on the settlement officer's report are to be type-written in duplicate and submitted through the usual official channel to Government, who will instruct the Press

to print them for publication with such omissions or alterations as they may consider necessary. When these remarks have been printed they are appended to the printed copies of the settlement officer's report, the paging being continued from the last page of the appendices already printed. The whole correspondence is then bound as a selection with a title page and an index, and all the copies are sent to Government for distribution from the Secretariat to the various officers and departments concerned.—R. 1093/28 of 24th July 1928.

CHAPTER IX.

CALCULATION OF THE ASSESSMENTS.

AFTER the maximum rates have been sanctioned by Government the next stage is the calculation of the assessments in accordance therewith. Previous to the year 1909 this operation was carried out through the complicated series of processes described below. At the end of that year, however, a much simplified process was introduced at the instance of Mr. Pratt, the Settlement Commissioner, which has resulted in a large saving of time and expense.

Previous to 1909.

In all the four Surveys the processes involved in the calculation of the assessment were 4 in number, *viz.* —

Process No. 1.—The calculation of the assessment *rate per acre* or *kacha dar* for the survey number by applying the maximum rate to the classification value, including, in the case of Dry-crop land only an allowance on account of distance from village.

Process No. 2.—The elimination of fractions of 6 pies from this acre rate by *dharsod*, 3 pies and under being discarded and over 3 pies being taken as 1 anna, thus producing the *pakka dar*.

Process No. 3.—The multiplication of this acre rate by the area of the survey number, thus producing the *kacha akar* or assessment.

Process No. 4.—The elimination of fractions of annas from the *kacha akar* by *dharsod* in accordance with a scale to be given subsequently, thus producing the *pakka akar* or final assessment of the number ready for entry in the settlement registers.

Considered in themselves there is nothing very complicated in these processes, as the following simple example will shew :—

Survey No.	Area.	Classification value.	Maximum rate
	A. g.	a.	Rs. a.
1	3 2	12	2 12

Process No. 1.—Calculation of the rate per acre (*kacha dar*)—

Multiplying classification value annas 12 by maximum rate Rs. 2-12 gives

$$\frac{\overset{3}{\cancel{12}}}{16} \times \frac{11}{\cancel{4}} = \frac{33}{16} = \underline{\text{Rs. } 2 \text{ as. } 1.}$$

Process No. 2.—Elimination of fractions from *kacha dar*—

In this case nothing to be done. Hence *pakka dar* is Rs. 2-1.

Process No. 3.—Calculation of *kacha akar*—

Multiplying *pakka dar* Rs 2-1 by area 3 acres 2 gunthas gives Rs. $2\frac{1}{16} \times 3\frac{1}{20}$ = Rs. 6-4-8.

Process No. 4.—Elimination of fractions from *kacha akar*—

This was done in accordance with the following scales :—

Scale No. I.

For all Collectorates except Thana, Kolaba, Ratnagiri and Kanara

From			To			Final assessment.		
Rs	a	p.	Rs.	a	p	Rs.	a.	p.
0	0	1	0	3	0	0	2	0
0	3	1	0	6	0	0	4	0
0	6	1	0	10	0	0	8	0
0	10	1	0	14	0	0	12	0
0	14	1	1	4	0	1	0	0
1	4	1	1	12	0	1	8	0
1	12	1	2	4	0	2	0	0
2	4	1	2	12	0	2	8	0
2	12	1	3	4	0	3	0	0
3	4	1	3	12	0	3	8	0
3	12	1	4	8	0	4	0	0
4	8	1	5	8	0	5	0	0
and so on								

Scale No. II

For use in Thana, Kolaba, Ratnagiri and Kanara.

From	To	Fixed annas assessment.
Rs. a. p.	Rs. a. p.	Rs. a. p.
0 0 1	0 0 6	0 0 6
0 0 7	0 1 6	0 1 0
0 1 7	0 3 0	0 2 0

For higher figures as Scale I.

The interpretation of these scales is that a *kacha akar* falling between the figures given in columns 1 and 2 was converted into the corresponding *pakka akar* given in column 3. Thus :—

Kacha akar	Pakka akar.	
Rs. a. p.	Rs. a p.	
0 1 6	0 2 0	Scale I.
0 1 6	0 1 0	,, II.
2 7 0	2 8 0	
3 14 0	4 0 0	
10 11 0	11 0 0	

Returning to the example, the *kacha akar* is Rs. 6-4-8. According to the scale, therefore, the 4 annas 8 pies is discarded and the *pakka akar* becomes Rs. 6-0-0.

These 4 processes may now be summarized as follows :—

Process No. 1 gives the *kacha dar* of Rs. 2–1–0.

Process No. 2 gives the *pakka dar* of Rs. 2–1–0.

Process No. 3 gives the *kacha akar* of Rs. 6–4–8.

Process No. 4 gives the *pakka akar* of Rs. 6–0–0.

So far as processes Nos. 2, 3 and 4 are concerned the methods adopted in all the different Surveys were just as described above without complications of any sort. With respect to the first process, however, there are numerous complications, particularly in the Deccan system, into which it will be necessary to go in some detail. As the Gujarat system is the least complicated it will be considered first.

(1) GUJARAT.

Dry-crop.

(*i*) In the classification of Dry-crop land 2 factors of value were taken into account, *viz.*, Soil and Sub-soil water, each of which was classed according to a separate scale of annas. As the same Maximum rate was applied to each there would have been no objection to combining the soil and sub-soil water annas of a survey number into one and applying the Maximum rate to the total in order to find the acre rate. But in actual practice each was worked out separately and then combined to form the total assessment, the object being to keep the two distinct in order to facilitate the reduction of the sub-soil rate at any time if necessary.

(*ii*) Before, however, the Maximum rate could be applied to the classification it had, in the case of Dry-crop land, to be modified by the distance scale. As explained in Chapter VIII the effect of the scale was to increase the Maximum rate for numbers situated close to the village and to decrease it for those at a distance therefrom; and, as one of the 5 scales was applied to every village and so to every survey number, the result was to vary the Maximum rate in the case of each number, except those situated at the particular distance where no addition was made. This increase or decrease in the Maximum rate was made in "annas to the rupee". Thus, if the rate was Rs. 3-0 and the allowance for "distance" was + 1 anna 6 pies, then the increase to the Maximum rate would be 1·6 × 3 = 4 annas 6 pies, and so it would become Rs. 3-4-6; but if, on the other hand, the allowance was—1·6, the Maximum rate would become Rs. 2-11-6.

To give some examples of this :—

Survey No.	Classification value.	Maximum rate	Distance	Scale applied
		Rs. a.		
1	12 as	3 0	Within ½ mile.	No. III.

Turning up scale No. III (*vide* p. 362) it will be found that the allowance for distance within ½ mile according to that scale is + 1 anna per rupee. The Maximum rate has, therefore, to be increased by 3 annas and becomes Rs. 3-3. The

kacha dar can now be worked out in the ordinary way and will be found to be Rs. 2-6.

Garden.

The *kacha dar* of these lands was worked out in the same way as that of Dry-crop, except that the Distance scale was not applied, so that the Maximum rate remained unchanged.

Rice.

Old Rice.—The factors of value according to the classification system of Old Rice are 5 in number, *viz.*, Soil, Sub-soil water, Akasia, Himayat and Dusota (*vide* p. 312), and, as in the case of Dry-crop land, the assessment of all these factors was worked out separately and then combined in order to form the total assessment of the number. With respect to some talukas, *e.g.*, Sanand of Ahmedabad, this course would be necessary in any case, since the Maximum rates of the Soil and Water elements are different. The methods adopted, being the same as those previously described, do not call for notice, except in the case of *the Soil element.*

The particular point to be noticed in this connection is the peculiar rule, according to which the ostensible Soil annas of the classification book were required to be *doubled* before the Maximum rate was applied to them. Thus, if the Soil annas shewn in the *prati* book were 7 they were doubled and became 14, the Soil assessment being worked out according to the latter figures.

New Rice.—The factors of value in the case of New Rice are Position, Soil, Sub-soil water, Akasia and, where watered from a tank, Himayat. The Soil classification being carried out according to the Dry-crop scale, no doubling of the annas was required. In working out the *kacha dar* the Soil and Position annas were combined, that of the other 3 elements being taken out separately.

(2) THE KONKAN.

The method of working out the assessment employed in the Konkan varied for the different classes of lands and even for the same class at different periods. These methods may be described as follows :—

Old Rice.

Two methods of working out the assessment of Old Rice lands were used. The first of these was the ordinary Gujarat method of finding the *kacha dar* by multiplying the classification annas by the Maximum rate. The second method was adopted in certain talukas for reasons which have been explained in Part I (*vide* p. 125), *viz.*, the necessity of introducing some further differentiation between the value of good and poor soils supplementary to that afforded by classification. As Mr. Stewart remarked with reference to the question of Konkan Rice land: "It is well known that although good rice soils with good water advantages produce very fine crops and there is comparatively little difference between the produce of a 16-anna and a 12-anna field, and even down to fields classed at 8 annas there is no startling falling off in production below that degree of valuation, not only does production decrease rapidly, but the increased cost of cultivation causes rapidly diminishing profits."* For this reason, therefore, he made the proposal, which was accepted, to employ a special table of valuation for use in the assessment of Rice lands.

The Jantri.

The special table so used is called a *jantri*. In its ordinary form, as used in the Gujarat Survey, the *jantri* was merely a ready-reckoner of assessments, shewing the acre rates for the different classification values according to the sanctioned Maximum rates, which were worked out ready to hand in order to save the karkun the trouble of going through the operations of calculation separately in the case of each survey number. As such, the acre rates appearing therein would be simply those which the karkun could have worked out for himself by going through the detailed operations of calculation. In the Konkan and Deccan systems, however, while the *jantri* served the purpose of a ready-reckoner, the rates contained therein were not such as could have been calculated by the karkun, but were modifications of those, drawn up by the Superintendent personally and embodying his ideas as to what the rates ought to be.

These statements will best be explained by an example. Below will be found a *jantri* for a Maximum rate of Rs. 4 used in calculating the *kacha dar* of Rice lands in

* Paragraph 24 of Mr Stewart's Report, No. 981 of 22nd May 1888-88 No CCXXIII, Old Khalapur Petha, p 234.

the Konkan. Column 1 contains the classification values of Soil and Water combined; column 2 the *kacha dars* corresponding to these values. Now, these rates are, it will be found, other than those which would be worked out by the simple combination of the classification value and the Maximum rate. Take, for example, the classification values of 3 annas and 12 annas. According to the ordinary process the *kacha dar* on a Rs. 4 Maximum rate in the former

case would be $\frac{3}{\cancel{16}_{4}} \times \overset{\text{Rs}}{\cancel{4}} = 12 \text{ Annas}$ and in the latter

case $\frac{12}{\cancel{16}_{4}} \times \overset{\text{Rs.}}{\cancel{4}} = \text{Rs. } 3$, whereas according to the *jantri* they are

10 annas and Rs. 3–4 respectively; and if the whole *jantri* be tested in this way, it will be found that the *kacha dars* in the case of all classification values below 8 annas are *less* and of all above 8 annas are *more* than those which would be produced by the multiplication of the classification values by the Maximum rate. The meaning of this is that, in the opinion of the Superintendent who drew up the *jantri*, the difference between the relative values of the higher and lower classes of land was not sufficiently expressed by the classification scale, or, in other words, that land classed at, say, 4 annas was *not* in actual fact ⅓ as valuable as that classed at 12 annas but something less. Hence, in order to provide against the over-assessment of the lower classes of land, the Superintendent has taken advantage of the opportunity afforded by the *jantri* of modifying the rates by slightly lowering those of the inferior and increasing those of the higher classes of land.

In the case of these talukas in which this system was employed, the *kacha dar* for any particular classification is only to be found by inspection of the *jantri* for the taluka.

Konkan Rice Jantri for Maximum rate of Rs. 4.

Classification annas.			Maximum rate Rs. 4.		
Rs.	*a.*	*p*	*Rs.*	*a.*	*p.*
0	2	0	0	8	0
0	2	6	0	9	0
0	3	0	0	10	0
0	3	6	0	12	0
0	4	0	0	13	6
0	4	6	1	0	0
0	5	0	1	2	0
0	5	6	1	4	0
0	6	0	1	6	0
0	6	6	1	8	0
0	7	0	1	10	0
0	7	6	1	13	0
0	8	0	2	0	0
0	8	6	2	3	0
0	9	0	2	6	0
0	9	6	2	9	0
0	10	0	2	12	0
0	10	6	2	14	0
0	11	0	3	0	0
0	11	6	3	2	0
0	12	0	3	4	0
0	12	6	3	6	0
0	13	0	3	8	0
0	13	6	3	10	0
0	14	0	3	12	0
0	14	6	3	13	0
0	15	0	3	14	0
0	15	6	3	15	0
0	16	0	4	0	0

New Rice.

As has been explained in Part I (*vide* p. 156) New Rice land in the Konkan was classed as Old Rice, but assessed by the Dry-crop rate and not by the Rice rate. Here again two systems of working out the assessments were employed as with Old Rice. As the form of *jantri* used was the same as for Old Rice, it is unnecessary to give a further example, which may, however, be found on p. 248 of the Settlement Selection for the Old Khalapur Petha. No. CCXXIII.

Garden.

In the case of Rice lands the assessment for each particular survey number was worked out by the Settlement karkuns mechanically from the *jantri*, whether of the ordinary or the special type just described. In the case of Garden lands in the Konkan, however, the method of assessment was different. It is true that a Maximum rate was sanctioned in the Settlement Report, and that this was applied to the best gardens; but, in fixing the rates for the inferior gardens, the assessment was not worked out mechanically by a karkun in office, but was fixed by the Superintendent personally after an inspection on the spot and a study of the peculiar circumstances of each garden. In determining what the rate was to be in any particular case the *data* of the field classification were taken merely as a guide and not as an absolute determinant of the rate, as would be the case with other classes of land. In coming to his decision the Superintendent was guided rather by the condition of the water-supply, the situation of the field and more particularly by the crop grown than by the Soil classification; with respect to the higher classes of soil, little difference was made in the rates on account of the Soil factor, because in these classes its influence on fertility is relatively small as compared with the enormously greater importance of the water factor. In fact, just as was the case with the Pátasthal of the Deccan, the interaction of the various factors which go to make up the fertility value of the Konkan Garden lands was too delicate to permit of the adoption of any purely mechanical system of assessment by a fixed *jantri*, and this work had consequently to be performed individually for each garden after consideration of all the attendant circumstances. The general principles according to which this work used to be performed have been set out with great clearness by Mr. Fletcher with reference to the case of Pátasthal assessment in the Deccan in the Khanapur Settlement Report, to which, therefore, the reader is referred for more detailed

information on the subject. The rate fixed in this manner was finally entered by the Superintendent's own hand in the *bagayat takta*.

Dry-crop.

As has been explained in the chapter on Classification, previous to the year 1892 the two sub-classes of Dry-crop land in the Konkan—*rabi* and *varkas*—were treated, not as two sub-classes of one main division of lands, but as separate divisions themselves and were assessed at different Maximum rates. Sometimes these "Maximum rates" were of the ordinary type, being fixed upon a 16-anna classification maximum, in which case, as the highest classification value of *varkas* was 6 annas, the true maximum assessment for that class of land would be only 6-16ths of the nominal maximum. In the Ratnagiri district, however, the greater part of which was settled before 1892, it is more common to find the rates for both *rabi* and *varkas* fixed at a certain number of times the classification values, thus producing what Mr. Hatch calls the "so-called maximum rates". Thus, the *rabi* lands of Dapoli, Khed, Guhagar and some other talukas were assessed at 2 or 1½ times the soil classification, while in some villages of Chiplun, Mandangad petha and Guhagar the soil annas alone are taken as the rate; and similarly with *varkas* lands. After 1892, however, one Maximum rate was generally fixed for *rabi* and *varkas* combined, the assessment being worked out by its application to the classification values in the ordinary way.

Pulan.

In the case of Pulan lands the rate of assessment was ordinarily fixed at the Soil annas or, in other words, the ordinary maximum rate was Re. 1.

KANARA.

The system of calculating assessments in the Kanara Survey is the same as that adopted in the Southern Maratha Country.

Rice.

As the system of water classification was that of "water classes" the kind of *jantri* employed was of the ordinary Deccan type (*vide* p. 403). "These rice *jantris*, as elsewhere, were varied to give relief of pressure on lands which, in the opinion of the Settlement Officer, required thus to be dealt with. For example, the Kumta *jantri* of the Original Settlement gave very considerable reductions to the inferior rice lands compared with, say, the Karwar *jantri*. In Karwar 16-anna soil with 6th class water had a rate of 2-1. In Kumta

the same soil and water annas had a rate of 1-9. Similarly with poorer soils having good water (a much rarer combination) 4-anna soil with first class water was rated at 2-13 in Kumta and 2-4 in Karwar."*

Garden.

The principles according to which the rates of assessment were fixed for Garden lands was the same as those adopted in the assessment of Garden in the Konkan and *pâtasthal* in the Deccan. "Each number was rated separately by the Superintendent on a consideration of the position, the fineness of the produce and the nature of the trees composing the garden. The maximum rate was a true maximum. The Superintendent fixed, with the sanction of the Settlement Commissioner, what might be called 'sub-maximum rates' for various kinds of crops. Thus, the full maximum of, say, Rs. 14 would apply only to fully planted spice gardens, pure cocoanut had a rate of Rs. 10, Rs. 6 was given to plantain gardens, and Rs. 5 to a mixed crop of vegetables and miscellaneous fruit-trees. Within each 'sub-maximum rate' the Superintendent was guided by a *jantri* which gave the rate which certain water annas should have. The *jantri* was, however, a guide only. Little attention was paid to soil annas so long as they were above 10 annas; and the Superintendent exercised full discretion as to the rate which he thought a garden could bear. What he considered a fine garden would get a rate somewhere the maximum; what he thought poor would have a low rate. No distinction was made between villages. In the case of garden products (and spices particularly) comparative distance from markets was considered of little moment. The relative acre rates which were thus determined on the condition of the garden at the time of its classification have now been fixed in perpetuity, proportionate increase or decrease being made at Revision Settlements."*

Khushki.

The *kacha dar* of Khushki lands was worked out from a *jantri* of the type used in the case of Dry-crop lands in the Deccan, the distance from village being taken into account in the same way.

Pulan.

Pulan lands, being classed at the 6th Rice class, were assessed either by the ordinary Rice *jantri* at that class,

* Extract of a letter from Mr. Wiles, Superintendent, Land Records, Southern Division.

or else at a special rate slightly below the rate for that class.

The Deccan.

The Deccan system of calculating the assessment, like the system of classification, is a good deal more complicated than that of the other surveys and, as will be seen, varies for every class of land.

(*A*) *Dry-crop.*

Lands of this class were divided into two main divisions, *viz.*, the Dry-crop of the plain taluka and that of the hill talukas, the latter again being sub-divided into two sub-classes for the Satara and Nasik districts.

(*i*) *The Poona system.*

The assessment of Dry-crop lands in the plain talukas of both the Deccan and Southern Maratha Country was worked out by means of a *jantri* an example of which is given on the following page. This somewhat cryptic document may be explained as follows :—

(*a*) To take first the 4 columns at the top, opposite the figures "classes i, ii, iii and iv." These figures represent the 4 distance scales or "*jantri* classes" (for which *vide* page 362) and the numerals opposite to them, which are to be read *horizontally*, the distances in miles from the village site.

(*b*) Next to consider the vertical columns ranged under the column Nos. 1, 2, 3, 4, etc.

(i) Vertical column 1 refers to the soil classification values ranging from Re. 1–5–6 or $21\frac{1}{2}$ annas to 1 anna.

(ii) Vertical columns 2-12 refer to the assessment rates per acre according to the combination of the classification values opposite them in vertical column 1 with the distance scale vertically above them in the same column. Thus, the figures in vertical column 2 represent the *kacha dar* for land situated within $\frac{1}{4}$ mile of villages placed in *jantri* class i; those in vertical column 3 the *kacha dar* for land situated within $\frac{1}{2}$ mile of villages in class i and $\frac{1}{4}$ mile of those in class ii; and so on. It will be seen that in this *jantri* no difference is made in the rating with reference to the *jantri* class in cases where the distance is over $1\frac{3}{4}$ miles by the fact that after column 7 one and the same scale is applied to all classes of villages.

Deccan Survey Jantri.

Maximum rate Rs. 3.

			Class IV	[illegible]–[illegible]	1–1[illegible]							
		Class III	[illegible]	[illegible]–1	1[illegible]–1[illegible]							
	Class II	[illegible]	[illegible]	[illegible]–1[illegible]	..							
Class I	[illegible]	[illegible]	[illegible]	1–1[illegible]	1[illegible]–1[illegible]	2–2[illegible]	2[illegible]–2[illegible]	3–3[illegible]	3[illegible]–3[illegible]	4–4[illegible]	4[illegible]–4[illegible]	6–6[illegible]
1	2	3	4	5	6	7	8	9	10	11	12	13
Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p
1 5 6	4 1 0	4 1 0	4 1 0	4 0 0	4 0 0	3 15 0	3 14 0	3 13 0	3 12 0	3 11 0	..	..
1 5 0	4 0 0	4 0 0	4 0 0	3 15 0	3 15 0	3 14 0	3 13 0	3 12 0	3 11 0	3 10 0	..	
1 4 6	4 0 0	4 0 0	3 15 0	3 14 0	3 13 0	3 12 0	3 11 0	3 10 0	3 9 0	3 8 0	..	
1 4 0	4 0 0	3 15 0	3 14 0	3 13 0	3 12 0	3 11 0	3 10 0	3 9 0	3 8 0	3 7 0	..	..
1 3 6	3 14 0	3 13 0	3 12 0	3 11 0	3 10 0	3 9 0	3 8 0	3 7 0	3 6 0	3 5 0	..	.
1 3 0	3 13 0	3 12 0	3 11 0	3 10 0	3 9 0	3 8 0	3 7 0	3 6 0	3 5 0	3 4 0	.	
1 2 6	3 12 0	3 11 0	3 10 0	3 9 0	3 8 0	3 7 0	3 6 0	3 5 0	3 4 0	3 3 0	..	.
1 2 0	3 10 0	3 9 0	3 8 0	3 7 0	3 6 0	3 5 0	3 4 0	3 3 0	3 2 0	3 1 0	..	.
1 1 6	3 8 0	3 7 0	3 6 0	3 5 0	3 4 0	3 3 0	3 2 0	3 1 0	3 0 0	2 15 0	..	..
1 1 0	3 7 0	3 6 0	3 5 0	3 4 0	3 3 0	3 2 0	3 1 0	3 0 0	2 15 0	2 14 0	..	.
1 0 6	3 6 0	3 5 0	3 4 0	3 3 0	3 1 0	3 0 0	2 15 0	2 14 0	2 13 0	2 12 0	..	.
1 0 0	3 6 0	3 4 0	3 2 0	3 1 0	3 0 0	2 15 0	2 14 0	2 13 0	2 12 0	2 11 0	2 10 0	.
0 15 6	3 5 0	3 3 0	3 1 0	3 0 0	2 15 0	2 14 0	2 13 0	2 12 0	2 11 0	2 10 0	2 9 0	..
0 15 0	3 4 0	3 2 0	3 0 0	2 14 0	2 13 0	2 12 0	2 11 0	2 10 0	2 9 0	2 8 0	2 7 0	..
0 14 6	3 3 0	3 1 0	2 15 0	2 13 0	2 12 0	2 11 0	2 10 0	2 9 0	2 8 0	2 7 0	2 6 0	.
0 14 0	3 1 0	2 15 0	2 13 0	2 11 0	2 10 0	2 9 0	2 8 0	2 7 0	2 6 0	2 5 0	2 4 0	
0 13 6	3 0 0	2 14 0	2 12 0	2 10 0	2 9 0	2 8 0	2 7 0	2 6 0	2 5 0	2 4 0	2 3 0	.
0 13 0	2 14 0	2 12 0	2 10 0	2 8 0	2 7 0	2 6 0	2 5 0	2 5 0	2 4 0	2 3 0	2 2 0	.
0 12 6	2 12 0	2 10 0	2 8 0	2 7 0	2 6 0	2 5 0	2 4 0	2 4 0	2 3 0	2 2 0	2 1 0	..
0 12 0	2 11 0	2 9 0	2 7 0	2 5 0	2 4 0	2 3 0	2 2 0	2 2 0	2 1 0	2 0 0	1 15 0	.
0 11 6	2 10 0	2 8 0	2 6 0	2 4 0	2 3 0	2 2 0	2 1 0	2 1 0	2 0 0	1 15 0	1 14 0	
0 11 0	2 8 0	2 6 0	2 4 0	2 2 0	2 1 0	2 0 0	1 15 0	1 15 0	1 14 0	1 13 0	1 12 0	..
0 10 6	2 6 0	2 4 0	2 2 0	2 1 0	2 0 0	1 15 0	1 14 0	1 14 0	1 13 0	1 12 0	1 11 0	..
0 10 0	2 5 0	2 3 0	2 1 0	1 15 0	1 14 0	1 13 0	1 12 0	1 12 0	1 11 0	1 10 0	1 9 0	..
0 9 6	2 3 0	2 1 0	1 15 0	1 13 0	1 13 0	1 12 0	1 11 0	1 11 0	1 10 0	1 9 0	1 8 0	.
0 9 0	2 1 0	1 15 0	1 13 0	1 11 0	1 11 0	1 10 0	1 9 0	1 9 0	1 8 0	1 7 0	1 6 0	.
0 8 6	1 15 0	1 13 0	1 12 0	1 10 0	1 9 0	1 8 0	1 7 0	1 7 0	1 6 0	1 5 0	1 4 0	.
0 8 0	1 13 0	1 11 0	1 10 0	1 8 0	1 7 0	1 6 0	1 6 0	1 5 0	1 4 0	1 3 0	1 3 0	.
0 7 6	1 11 0	1 9 0	1 8 0	1 7 0	1 6 0	1 5 0	1 5 0	1 4 0	1 3 0	1 2 0	1 2 0	..
0 7 0	1 9 0	1 7 0	1 6 0	1 5 0	1 4 0	1 3 0	1 3 0	1 2 0	1 1 0	1 0 0	1 0 0	..
0 6 6	1 7 0	1 6 0	1 5 0	1 4 0	1 3 0	1 2 0	1 2 0	1 1 0	1 0 0	0 15 0	0 15 0	..
0 6 0	1 5 0	1 4 0	1 3 0	1 2 0	1 1 0	1 1 0	1 0 0	0 15 0	0 14 0	0 13 0	0 13 0	..
0 5 6	1 3 0	1 2 0	1 1 0	1 0 0	1 0 0	0 15 0	0 15 0	0 14 0	0 13 0	0 12 0	0 12 0	.
0 5 0	1 2 0	1 1 0	1 0 0	0 15 0	0 14 0	0 14 0	0 13 0	0 12 0	0 12 0	0 11 0	0 11 0	..
0 4 6	1 0 0	0 15 0	0 14 0	0 13 0	0 12 0	0 12 0	0 11 0	0 11 0	0 10 0	0 10 0	0 9 0	.
0 4 0	0 14 0	0 13 0	0 12 0	0 11 0	0 10 0	0 10 0	0 9 0	0 9 0	0 9 0	0 8 0	0 8 0	
0 3 6	0 12 0	0 11 0	0 10 0	0 9 0	0 9 0	0 8 0	0 8 0	0 7 6	0 7 6	0 7 0	0 7 0	..
0 3 0	0 10 0	0 9 0	0 8 0	0 7 6	0 7 6	0 7 6	0 7 0	0 7 0	0 6 6	0 6 6	0 6 0	..
0 2 6	0 8 0	0 7 0	0 6 0	0 6 0	0 6 0	0 6 0	0 5 6	0 5 6	0 5 6	0 5 0	0 5 0	.
0 2 0	0 6 0	0 5 0	0 4 6	0 4 6	0 4 6	0 4 6	0 4 6	0 4 0	0 4 0	0 4 0	0 3 6	..
0 1 6	0 4 6	0 4 0	0 3 6	0 3 6	0 3 6	0 3 6	0 3 6	0 3 0	0 3 0	0 3 0	0 3 0	..
0 1 0	0 3 0	0 3 0	0 2 6	0 2 6	0 2 6	0 2 6	0 2 6	0 2 0	0 2 0	0 2 0	0 2 0	..

A few examples will make this clear :—

Jantri class.	Distance.	Classification value		For which *vide*	Hence Kacha dar
		A.	p		Rs. a p.
ii	1 mile.	12	0	Vertical column 5 opposite 12 as. in column 1.	2 5 0
iv	¼ „	12	0	„ „	2 5 0
i	2¼ „	15	0	Vertical column 7 opposite 15 as. in column 1	2 12 0
iii	1½ „	6	6	Vertical column 6 opposite 6 as 6 pies in column 1	1 3 0

So much for the interpretation of the *jantri*. It remains to explain the relation of the rates which appear therein to what may be called the "normal rates" as worked out by the simple multiplication of the classification values by the maximum rate. This is a more difficult task than in the case of the Konkan *jantri*, because of the fact that there are two disturbing factors involved, *viz.*, first that of the distance scale and secondly that of the Superintendent's ideas; and as no indication is given as to the parts played by each of these factors, it is impossible to say how much of the variation from normal is to be put down to either. Thus, the *kacha dar* given in column 2 opposite annas 14 in column 1 is Rs. 3-1. Now, as the maximum rate is Rs. 3 the normal *kacha dar* would be $\frac{14}{16} \times 3 =$ Rs. 2-10. In other words, the combined operation of the distance scale and the Superintendent's ideas gives an increase of 7 annas over the normal rate. But how much of this increase is due to the scale and how much to the Superintendent it is impossible to say. Other examples of similar variation are as follows :—

Classification annas.	Rate column	Rate as in jantri	Normal rate	Difference.
		Rs a p	Rs a p	Rs a p
20	3	3 15 0	3 12 0	+ 3 0
10	4	2 1 0	1 14 0	+ 3 0
5	2	1 2 0	0 15 0	+ 3 0
3	7	0 7 6	0 9 0	− 1 6

The *kacha dar* of Dry-crop land in the Deccan, therefore, is made up of the combined Maximum rate and Classification value varied by the effect of the distance scale and the Superintendent's ideas. As in the Konkan, in order to suit local circumstances more than one *jantri* might be framed under one and the same Maximum rate; it is necessary, therefore, in finding out what is the rate of assessment for any given classification value in any village, to consult the particular *jantri* applied by the Superintendent.

(ii) The Dangi System of Nasik.

Nasik and Dindori.

Kali.—Under Mr. Tytler's system the rate per acre was identical with the classification annas. Hence the acre rates for the 6 classes of soil were Re. 1-2, annas 15, 12, 9, 6 and 4 respectively. In the case of the Dindori taluka these rates still remain in force, but in the Nasik taluka the old rates were raised at Revision by 25 per cent.

Mal.—In the case of Mal lands also the acre rates were identical with the classification annas, and, not having been enhanced at Revision, remain at annas 7, 5, 4 and 3 for the four classes.

Peint.

Bhadli and Mal.—In both cases the assessment was found by the ordinary method of multiplying the classification annas by the Maximum rate.

(iii) Satara under the Kolhapur Hill Rules.

Khushki and Jirayat.—These lands were assessed by means of a Dry-crop *jantri* of the kind previously described.

Tisali and Kumri.—In the Wai taluka these lands were assessed by means of a special *jantri* of the Konkan type without regard to distance from village. In the case of the Patan, Javli and Satara talukas, for reasons given by Mr. Ozanne in the Patan first Revision Settlement Report, they were assessed by the same *jantri* as was applied to the Khushki and Jirayat land modified by the operation of the Dongar class rules (for which *vide p.* 275).

B – MOTASTHAL

I.—In the Deccan.

Previous to 1877.

In Poona, Ahmednagar, Sholapur and Nasik.—As has previously been explained, under this system of classification *motasthal* land was treated as a superior Dry-crop. The assessment of such land was, therefore, found by the application of the ordinary Dry-crop *jantri*.

In Satara.—In Satara a special *jantri* was employed of the Konkan type.

After 1877.

With a few minor exceptions the system of assessment used by Colonel Anderson was the following :—

1st and 2nd class wells.

A special *motasthal jantri* of the Konkan type was applied, an example of which, as attached to Colonel Anderson's classification rules, is given below :—

Motasthal Jantri.

Classification rates	Maximum rates.							
	Re 1-2.	Re 1-4.	Re 1-6	Re 1-8.	Re 1-10	Re 1-12	Re 1-14.	Rs 2-0
Rs. a. p	Rs a.	Rs a	Rs a	Rs a	Rs a	Rs a	Rs. a.	Rs. a.
1 12 0	1 15	2 3	2 6	2 10	2 13	3 1	3 4	3 8
1 11 6	1 15	2 3	2 6	2 9	2 13	3 0	3 4	3 7
1 11 0	1 14	2 2	2 5	2 8	2 12	2 15	3 3	3 6
1 10 6	1 14	2 1	2 4	2 8	2 11	2 14	3 2	3 5
1 10 0	1 13	2 0	2 4	2 7	2 10	2 13	3 1	3 4
1 9 6	1 13	2 0	2 3	2 6	2 9	2 13	3 0	3 3
1 9 0	1 12	1 15	2 2	2 5	2 9	2 12	2 15	3 2
1 8 6	1 12	1 15	2 2	2 5	2 8	2 11	2 14	3 1
1 8 0	1 11	1 14	2 1	2 4	2 7	2 10	2 13	3 0
1 7 6	1 10	1 13	2 0	2 3	2 6	2 9	2 12	2 15
1 7 0	1 10	1 13	1 15	2 2	2 5	2 8	2 11	2 14
1 6 6	1 9	1 12	1 15	2 2	2 5	2 7	2 10	2 13
1 6 0	1 9	1 11	1 14	2 1	2 4	2 6	2 9	2 12
1 5 6	1 8	1 11	1 14	2 0	2 3	2 6	2 8	2 11
1 5 0	1 8	1 10	1 13	1 15	2 2	2 5	2 7	2 10
1 4 6	1 7	1 10	1 12	1 15	2 1	2 4	2 6	2 9
1 4 0	1 6	1 9	1 11	1 14	2 0	2 3	2 5	2 8
1 3 6	1 6	1 8	1 11	1 13	2 0	2 2	2 5	2 7
3 0	1 5	1 8	1 10	1 12	1 15	2 1	2 4	2 6
2 6	1 5	1 7	1 9	1 12	1 14	2 0	2 2	2 5
2 0	1 4	1 6	1 9	1 11	1 13	1 15	2 2	2 4
1 6	1 4	1 6	1 8	1 10	1 12	1 15	2 1	2 3
1 0	1 3	1 5	1 7	1 9	1 12	1 14	2 0	2 2
0 6	1 3	1 5	1 7	1 9	1 11	1 13	1 15	2 1
0 0	1 2	1 4	1 6	1 8	1 10	1 12	1 14	2 0
15 6	1 1	1 3	1 5	1 7	1 9	1 11	1 13	1 15
15 0	1 1	1 3	1 4	1 6	1 8	1 10	1 12	1 14
14 6	1 0	1 2	1 4	1 6	1 8	1 9	1 11	1 13
14 0	1 0	1 2	1 3	1 5	1 7	1 8	1 10	1 12
13 6	0 15	1 1	1 2	1 4	1 6	1 8	1 9	1 11
13 0	0 15	1 0	1 2	1 3	1 5	1 7	1 8	1 10
12 6	0 14	1 0	1 1	1 3	1 4	1 6	1 7	1 9
12 0	0 13	0 15	1 0	1 2	1 3	1 5	1 6	1 8
11 6	0 13	0 14	1 0	1 1	1 3	1 4	1 6	1 7
11 0	0 12	0 14	0 15	1 0	1 2	1 3	1 5	1 6
10 6	0 12	0 13	0 14	1 0	1 1	1 2	1 4	1 5
10 0	0 11	0 12	0 14	0 15	1 0	1 1	1 3	1 4
9 6	0 11	0 12	0 13	0 14	0 15	1 1	1 2	1 3
9 0	0 10	0 11	0 12	0 13	0 15	1 0	1 1	1 2
8 6	0 10	0 11	0 12	0 13	0 14	0 15	1 0	1 1
8 0	0 9	0 10	0 11	0 12	0 13	0 14	0 15	1 0
7 6	0 8	0 9	0 10	0 11	0 12	0 13	0 14	0 15
7 0	0 8	0 9	0 9	0 10	0 11	0 12	0 13	0 14
6 6	0 7	0 8	0 9	0 10	0 11	0 11	0 12	0 13
6 0	0 7	0 7	0 8	0 9	0 10	0 10	0 11	0 12
5 6	0 6	0 7	0 7	0 8	0 9	0 10	0 10	0 11
5 0	0 6	0 6	0 7	0 7	0 8	0 9	0 9	0 10
4 6	0 5	0 6	0 6	0 7	0 7	0 8	0 8	0 9
4 0	0 4	0 5	0 5	0 6	0 6	0 7	0 7	0 8
3 6	0 4	0 4	0 5	0 5	0 6	0 6	0 7	0 7
3 0	0 3	0 4	0 4	0 4	0 5	0 5	0 6	0 6
2 6	0 3	0 3	0 3	0 4	0 4	0 4	0 5	0 5

MOTASTHAL JANTRI—*contd.*

Classification rates	Maximum rates.							
	Rs 2-2.	Rs. 2-4.	Rs 2-6	Rs 2-8	Rs. 2 10.	Rs. 2-12.	Rs 2-14.	Rs 3-0
Rs. a p.	Rs a	Rs. a	Rs a.	Rs. a	Rs a	Rs a	Rs a.	Rs a.
1 12 0	3 11	3 15	4 2	4 6	4 9	4 13	5 0	5 4
1 11 6	3 10	3 14	4 1	4 5	4 8	4 12	4 15	5 2
1 11 0	3 9	3 13	4 0	4 3	4 7	4 10	4 14	5 1
1 10 6	3 8	3 12	3 15	4 2	4 6	4 9	4 12	4 15
1 10 0	3 7	3 10	3 14	4 1	4 4	4 7	4 11	4 14
1 9 6	3 6	3 9	3 13	4 0	4 3	4 6	4 9	4 12
1 9 0	3 5	3 8	3 11	3 14	4 2	4 5	4 8	4 11
1 8 6	3 4	3 7	3 10	3 13	4 0	4 3	4 6	4 9
1 8 0	3 3	3 6	3 9	3 12	3 15	4 2	4 5	4 8
1 7 6	3 2	3 5	3 8	3 11	3 14	4 1	4 4	4 6
1 7 0	3 1	3 4	3 7	3 9	3 12	3 15	4 2	4 5
1 6 6	3 0	3 3	3 5	3 8	3 11	3 14	4 1	4 3
1 6 0	2 15	3 1	3 4	3 7	3 10	3 12	3 15	4 2
1 5 6	2 14	3 0	3 3	3 6	3 8	3 11	3 14	4 0
1 5 0	2 13	2 15	3 2	3 4	3 7	3 10	3 12	3 15
1 4 6	2 12	2 14	3 1	3 3	3 6	3 8	3 11	3 13
1 4 0	2 10	2 13	2 15	3 2	3 4	3 7	3 9	3 12
1 3 6	2 9	2 12	2 14	3 1	3 3	3 6	3 8	3 10
1 3 0	2 8	2 11	2 13	2 15	3 2	3 4	3 7	3 9
1 2 6	2 7	2 10	2 12	2 14	3 1	3 3	3 5	3 7
1 2 0	2 6	2 8	2 11	2 13	2 15	3 1	3 4	3 6
1 1 6	2 5	2 7	2 10	2 12	2 14	3 0	3 2	3 4
1 1 0	2 4	2 6	2 8	2 10	2 13	2 15	3 1	3 3
1 0 6	2 3	2 5	2 7	2 9	2 11	2 13	2 15	3 1
1 0 0	2 2	2 4	2 6	2 8	2 10	2 12	2 14	3 0
0 15 6	2 1	2 3	2 5	2 7	2 9	2 11	2 13	2 14
0 15 0	2 0	2 2	2 4	2 5	2 7	2 9	2 11	2 13
0 14 6	1 15	2 1	2 2	2 4	2 6	2 8	2 10	2 11
0 14 0	1 14	1 15	2 1	2 3	2 5	2 6	2 8	2 10
0 13 6	1 13	1 14	2 0	2 2	2 3	2 5	2 7	2 8
0 13 0	1 12	1 13	1 15	2 0	2 2	2 4	2 5	2 7
0 12 6	1 11	1 12	1 14	1 15	2 1	2 2	2 4	2 5
0 12 0	1 9	1 11	1 12	1 14	1 15	2 1	2 2	2 4
0 11 6	1 8	1 10	1 11	1 13	1 14	2 0	2 1	2 2
0 11 0	1 7	1 9	1 10	1 11	1 13	1 14	2 0	2 1
0 10 6	1 6	1 8	1 9	1 10	1 12	1 13	1 14	1 15
0 10 0	1 5	1 6	1 8	1 9	1 10	1 11	1 13	1 14
0 9 6	1 4	1 5	1 7	1 8	1 9	1 10	1 11	1 12
0 9 0	1 3	1 4	1 6	1 6	1 8	1 9	1 10	1 11
0 8 6	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9
0 8 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	1 8
0 7 6	1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 6
0 7 0	0 15	1 0	1 1	1 1	1 2	1 3	1 4	1 5
0 6 6	0 14	0 15	0 15	1 0	1 1	1 2	1 3	1 3
0 6 0	0 13	0 13	0 14	0 15	1 0	1 0	1 1	1 2
0 5 6	0 12	0 12	0 13	0 14	0 14	0 15	1 0	1 0
0 5 0	0 11	0 11	0 12	0 12	0 13	0 14	0 14	0 15
0 4 6	0 10	0 10	0 11	0 11	0 12	0 12	0 13	0 13
0 4 0	0 8	0 9	0 9	0 10	0 10	0 11	0 11	0 12
0 3 6	0 7	0 8	0 8	0 9	0 9	0 10	0 10	0 10
0 3 0	0 6	0 7	0 7	0 7	0 8	0 8	0 9	0 9
0 2 6	0 5	0 6	0 6	0 6	0 7	0 7	0 7	0 7

3rd class wells.

New Wells.—Lands under such wells were assessed by the Dry-crop *jantri* at the highest Dry-crop rate thereunder, *i.e.*, as though situated within ¼ mile of the village site, whatever the actual distance of the field.

Old Wells.—Land under these wells was assessed by the same *jantri* as was applied in the case of 1st and 2nd class wells. The actual assessments arrived at were, it is hardly necessary to point out, considerably less than those of 1st and 2nd class wells, for the classification annas of the latter were composed of the soil annas increased by those which were added under the A and B tables in the case of Old wells, and under A table only in that of New wells.

II.—The Southern Maratha Country.

Belgaum.

1st class wells were assessed at double the Dry-crop rate as found by the ordinary Dry-crop *jantri* at their actual distance from the village site.

2nd class wells were assessed at 1½ times the Dry-crop rate found in the same way.

3rd class wells.—Land under both Old and New wells was assessed at the ordinary Dry-crop rate.

In all three cases the soil annas were of course increased by the addition of Position Class.

Dharwar.

1st and 2nd class wells were assessed as above.

3rd class wells.

Old wells.—Land under Old wells was assessed by means of the Dry-crop *jantri* as though within ¼ mile of the village site, whatever the actual distance of the field.

New wells.—As explained in the chapter on classification, no increase for position was made in the case of such lands in Dharwar and they were, therefore, assessed as ordinary Dry-crop.

Bijapur.

In Bijapur the system of assessment employed varied according to the classification system, that of the Belgaum district being used for those talukas in which the Belgaum system of classification was employed, and that of the Deccan, *i.e.*, the A and B table system, in the remainder.

PATASTHAL.

The system of assessment adopted in the case of *pâtasthal* differed in two chief ways from that of the other classes of land. In the first place, the maximum *pâtasthal* rates which, as Mr. Fletcher explains, was placed upon "the best soil irrigable throughout the year," were fixed, not as in that of other classes of land on the whole group of villages, but upon the individual *pât* according to the condition of the water-supply, the state of the *bandhara* and other general considerations. Thus there might be, and often are, two or more *pâts*, within the same village with different maximum rates, *e.g.*, in the case of the village of Khamkheda in the Kalvan taluka of Nasik, where there are 3 *pâts*, all assessed at different maximum rates, one at Rs. 17, the second at Rs. 10 and the *third at Rs. 8. This difference is due to the fact that* in the first case irrigation is from the Girna river by a *pakka bandhara* with a large and constant supply of water, while in the two other cases it is from a *nala* by *kacha dams*, the difference in the rates being due to the fact that the Rs. 10 rate is placed upon old and the Rs. 8 rate upon new *pâtasthal*.

In the second place, the maximum rate having once been fixed, the rates for the other fields under the *pât* were determined, not as in the case of other classes of land mechanically by the application to the classification values of a predetermined *jantri*, but by the Settlement Officer himself after a consideration of the circumstances affecting each. Such circumstances would be the duration and certainty of the water-supply, the distance of the field from the dam, the area irrigable, and so on. At the same time, in order "to save making the same calculations over and over again, and to help to maintain uniformity of rating in similar fields," *pâtasthal jantris* were drawn up by the Superintendents for their own use, and, as giving the standard of assessment, are important documents.

Such a *jantri* drawn up by Mr. Whitcombe is given on page 400 and the principles upon which he went in framing it are explained by him as follows :—

"The maximum having been fixed at Rs. 6, combining soil and water, in consideration of the better kind of crop grown under *pâts* affording water-supply until the end of May, the maximum for November *pâts* should be pitched from 8 *to* 4 annas above the maximum dry-crop rate of the village *to* which the *jantri* is to be applied. In districts of good rainfall

that is, where November *páts* are fairly certain, the 6th class rate might commence from 4 to 6 annas higher. Having thus fixed the maximum rate of the 1st and 6th class *páts*, the maximum rate of the intermediate classes should be fixed according to the relative value of the water-supply and crops that are, or can be, grown. The dry-crop rates are the same throughout for each class; the difference is in the water only. With a 6-rupee maximum a difference of 12 annas between the 1st and 2nd classes, and of 8 annas between the 5th and 6th classes, and of 1 rupee between the others appears to be equitable. As water is the productive power the lowest rate under the 1st class should be about 4 annas higher than the highest rate of the 6th class. The proportionate rate under the classification *bhag* annas should be adjusted according to the difference in productive power. As the depth of soil classed from 16 annas to 9 does not materially affect productiveness the proportionate rates should be gradually lowered up to that point, after which a greater, and where necessary an increasing, difference should be made."

Patasthal Rate Scale, combining soil and water, for villages under a Maximum Dry-crop rate of Re. 1-4-0.

Soil classification Bhag annas.		1st class Rs 6-0-0 Water lasting until the end of May	2nd class Rs. 5-4-0 Water lasting until the end of April.	3rd class Rs. 4-4-0 Water lasting until the 15th of March.	4th class Rs 3-4-0 Water lasting until the 1st of February	5th class Rs. 2-4-0 Water lasting until the 1st of December.	6th class Re. 1-12-0. Water lasting until the 1st of November
1		2	3	4	5	6	7
		Rs a. p	Rs a p	Rs. a. p	Rs. a p.	Rs. a. p.	Rs a. p.
16 to 14·1	S.	1 4 0	1 4 0	1 4 0	1 4 0	1 4 0	1 4 0
		6 0 0	5 4 0	4 4 0	3 4 0	2 4 0	1 12 0
	W.	4 12 0	4 0 0	3 0 0	2 0 0	1 0 0	0 8 0
14 to 12·1	S	1 1 6	1 1 6	1 1 6	1 1 6	1 1 6	1 1 6
		5 12 0	5 0 0	4 0 0	3 1 0	2 2 0	1 9 0
	W.	4 10 6	3 14 6	2 14 6	1 15 6	1 0 6	0 7 6
12 to 11·1	S.	0 15 0	0 15 0	0 15 0	0 15 0	0 15 0	0 15 0
		5 8 0	4 12 0	3 12 0	2 14 0	1 15 0	1 6 0
	W	4 9 0	3 13 0	2 13 0	1 15 0	1 0 0	0 7 0
11 to 10·1	S	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
		5 4 0	4 8 0	3 8 0	2 12 0	1 13 0	1 4 0
	W	4 6 6	3 10 6	2 10 6	1 14 6	0 15 6	0 6 6
10 to 9·1	S	0 12 6	0 12 6	0 12 6	0 12 6	0 12 6	0 12 6
		5 0 0	4 4 0	3 4 0	2 10 0	1 12 0	1 2 0
	W.	4 3 6	3 7 6	2 7 6	1 13 6	0 15 6	0 5 6
9 to 8·1	S	0 11 0	0 11 0	0 11 0	0 11 0	0 11 0	0 11 0
		4 10 0	4 0 0	3 0 0	2 6 0	1 10 0	1 0 0
	W.	3 15 0	3 5 0	2 5 0	1 11 0	0 15 0	0 5 0
8 to 7·1	S.	0 10 0	0 10 0	0 10 0	0 10 0	0 10 0	0 10 0
		4 4 0	3 12 0	2 12 0	2 2 0	1 8 0	0 15 0
	W	3 10 0	3 2 0	2 2 0	1 8 0	0 14 0	0 5 0
7 to 6·1	S	0 8 6	0 8 6	0 8 6	0 8 6	0 8 6	0 8 6
		3 14 0	3 6 0	2 8 0	1 14 0	1 6 0	0 13 0
	W	3 5 6	2 13 6	1 15 6	1 5 6	0 13 6	0 4 6
6 to 5·1	S.	0 7 6	0 7 6	0 7 6	0 7 6	0 7 6	0 7 6
		3 8 0	3 0 0	2 4 0	1 10 0	1 3 0	0 11 0
	W.	3 0 6	2 8 6	1 12 6	1 2 6	0 11 6	0 3 6
5 to 4·1	S.	0 6 0	0 6 0	0 6 0	0 6 0	0 6 0	0 6 0
		3 0 0	2 10 0	2 0 0	1 6 0	1 0 0	0 9 0
	W.	2 10 0	2 4 0	1 4 0	1 0 0	0 10 0	0 3 0
4 to 3·1	S	0 5 0	0 5 0	0 5 0	0 5 0	0 5 0	0 5 0
		2 8 0	2 2 0	1 10 0	1 2 0	0 13 0	0 8 0
	W.	2 3 0	1 13 0	1 5 0	0 13 0	0 8 0	0 3 0
3 annas and under	S.	0 3 6	0 3 6	0 3 6	0 3 6	0 3 6	0 3 6
		2 0 0	1 10 0	1 4 0	0 14 0	0 10 0	0 6 0
	W.	1 12 6	1 6 6	1 0 6	0 10 6	0 6 6	0 2 6

The figures in bold type shew soil and water separately, while the other figures shew the combined rate.

In Appendix VII-B is given a further note upon the same subject by Colonel Anderson.

The *jantris* drawn up in this manner were, however, as stated above, merely guides and, as will be seen from an inspection of any *pátasthal takta*, the Superintendent was accustomed to vary them considerably according to circumstances. For, as Mr. Fletcher remarks, "The *jantri* can only take into account the main variations of water-supply and soil; cases which fall between the rates given in the *jantri* have to be allowed for, and special circumstances affecting the water-supply, such as the use of a *sup* or lift for certain periods or certain areas, the distance of the field from the dam, special uncertainty of supply in bad years, etc., have to be taken into account wherever met with, allowance being made sometimes by reduction in the rate, sometimes by reduction in the area to be assessed, as may seem most suitable; thus the rating of *pátasthal* areas is a work of time and labour." He proceeds with reference to general considerations affecting *pátasthal* rates: "It will be admitted that the assessable value of water as a fertilising agent must be affected by the considerations of proximity to markets in the same way as that of the soil. With respect to climate, *i.e.*, rainfall, the proportionate value of a certain supply of water would be somewhat greater where rainfall is precarious than where rainfall is always sufficient; yet in rating *pátasthal* land in a district of uncertain rainfall it is important to allow for such facts as that a *pát* which flows till the end of March one year may not flow later than January in another, and this uncertainty in the period of supply much outweighs the fact of its proportionately greater value. Another fact of general applicability is that the effect of irrigation is in the direction of equalising the value of different soils, *i.e.*, that inferior soils are benefited in greater proportion than superior by being irrigated, and should, therefore, take a proportionately higher water-rate. These and other considerations, which have all to be borne in mind in preparing the *jantri* or rate table, combine to make the assessn [illegible] complicated matter than that o[illegible] s obviously impossible to assign [illegible] we are compelled to have resort to rates the moderation of which can be plainly inferred from actual experience."*

* Paragraphs 5 and 6 of Mr. Fletcher's Report, No. 1027 of 4th August 1891: SS. No. CCLIX, Khanapur, p 55

Deccan and Southern Maratha Country Survey—Rice Rate Jantri of a consolidated Soil and Water Rate of Rs. 9.

Water Class	Soil Classification.							
	1 0 0	0 15 6	0 15 0	0 14 6	0 14 0	0 13 6	0 13 0	0 12 6
A p.	Rs a p	Rs. a p	Rs a p	Rs a p.	Rs a p.	Rs a. p	Rs a p	Rs. a p
1 0	9 0 0	8 14 0	8 11 0	8 9 0	8 7 0	8 5 0	8 1 0	7 14 0
1 6	8 2 0	8 0 0	7 14 0	7 12 0	7 9 0	7 5 0	7 0 0	6 13 0
2 0	7 7 0	7 5 0	7 3 0	7 0 0	6 12 0	6 7 0	6 8 0	6 0 0
2 6	6 10 0	6 8 0	6 5 0	6 3 0	6 0 0	5 11 0	5 7 0	5 4 0
3 0	5 12 0	5 10 0	5 8 0	5 6 0	5 3 0	5 0 0	4 12 0	4 9 0
3 6	4 15 0	4 14 0	4 12 0	4 10 0	4 8 0	4 5 0	4 1 0	3 15 0
4 0	4 4 0	4 2 0	4 0 0	3 14 0	3 13 0	3 10 0	3 7 0	3 5 0
4 6	3 13 0	3 11 0	3 10 0	3 8 0	3 7 0	3 5 0	3 3 0	3 1 0
5 0	3 8 0	3 7 0	3 5 0	3 4 0	3 2 0	3 1 0	2 15 0	2 13 0
5 6	3 4 0	3 3 0	3 1 0	3 0 0	2 15 0	2 14 0	2 12 0	2 10 0
6 0	3 0 0	2 15 0	2 14 0	2 13 0	2 12 0	2 11 0	2 9 0	2 7 0

Water Class.	Soil Classification—*contd.*							
	0 12 0	0 11 6	0 11 0	0 10 6	0 10 0	0 9 6	0 9 0	0 8 6
A p.	Rs a p.	Rs a p.	Rs a. p	Rs a p	Rs a. p	Rs a. p	Rs. a p	Rs. a p.
1 0	7 9 0	7 5 0	7 0 0	6 12 0	6 7 0	6 3 0	5 14 0	5 10 0
1 6	6 10 0	6 5 0	6 1 0	5 12 0	5 8 0	5 4 0	5 1 0	4 15 0
2 0	5 12 0	5 7 0	5 3 0	5 1 0	4 15 0	4 12 0	4 8 0	4 6 0
2 6	5 2 0	4 14 0	4 10 0	4 8 0	4 6 0	4 3 0	4 0 0	3 13 0
3 0	4 6 0	4 3 0	4 1 0	3 15 0	3 13 0	3 10 0	3 7 0	3 4 0
3 6	3 13 0	3 10 0	3 8 0	3 6 0	3 5 0	3 2 0	2 15 0	2 13 0
4 0	3 4 0	3 2 0	3 0 0	2 14 0	2 13 0	2 11 0	2 8 0	2 6 0
4 6	2 15 0	2 13 0	2 11 0	2 9 0	2 8 0	2 7 0	2 5 0	2 3 0
5 0	2 11 0	2 9 0	2 7 0	2 6 0	2 5 0	2 3 0	2 1 0	2 0 0
5 6	2 8 0	2 6 0	2 4 0	2 3 0	2 2 0	2 0 0	1 14 0	1 13 0
6 0	2 5 0	2 3 0	2 1 0	2 0 0	1 15 0	1 14 0	1 13 0	1 12 0

Deccan and Southern Maratha Country Survey—Rice Rate Jantri of a consolidated Soil and Water Rate of Rs. 9—contd.

Water Class.	Soil Classification—*concluded.*								
	0 8 0	0 7 6	0 7 0	0 6 6	0 6 0	0 5 6	0 5 0	0 4 6	0 4 0
A. p	Rs a p	Rs a p.	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a p	Rs a. p.
1 0	5 5 0	5 1 0	4 12 0	4 8 0	4 3 0	3 15 0	3 12 0	3 8 0	3 5 0
6	4 12 0	4 8 0	4 3 0	3 15 0	3 12 0	3 8 0	3 5 0	3 0 0	2 13 0
2 0	4 3 0	3 15 0	3 10 0	3 6 0	3 2 0	2 14 0	2 11 0	2 8 0	2 6 0
2 6	3 10 0	3 6 0	3 3 0	2 14 0	2 11 0	2 8 0	2 5 0	2 3 0	2 0 0
3 0	3 1 0	2 14 0	2 11 0	2 7 0	2 4 0	2 1 0	1 15 0	1 13 0	1 11 0
3 6	2 10 0	2 8 0	2 5 0	2 2 0	1 14 0	1 12 0	1 11 0	1 8 0	1 6 0
4 0	2 5 0	2 3 0	1 15 0	1 12 0	1 9 0	1 7 0	1 6 0	1 5 0	1 3 0
4 6	2 1 0	1 15 0	1 12 0	1 10 0	1 7 0	1 5 0	1 4 0	1 3 0	1 1 0
5 0	1 14 0	1 12 0	1 10 0	1 8 0	1 4 0	1 3 0	1 2 0	1 1 0	1 0 0
5 6	1 12 0	1 10 0	1 8 0	1 6 0	1 3 0	1 2 0	1 1 0	1 0 0	0 15 0
6 0	1 10 0	1 8 0	1 6 0	1 4 0	1 2 0	1 1 0	1 0 0	0 15 0	0 14 0

The quotations given above will serve to explain in rough outline the principles upon which the Settlement Officer went in fixing the rates of *pátasthal* assessment. The rates so determined were entered by him in the *pátasthal takta* with his own hand.

RICE.

I—Old Rice.

The Dangi system.—As has been explained in detail under the head of Classification Mr. Tytler, in his system of Rice assessment, divided Rice lands for that purpose into 4 classes, for each of which he fixed a certain rate of assessment, the rate for each individual field being determined upon the average of the classes composing it. In Igatpuri and the Old Kownai taluka (now Trimbak) Mr. Tytler's system was abolished at Revision and the Dharwar system introduced, but in the Nasik and Dindori talukas it was retained, and the original classification confirmed. In Dindori the old rates were confirmed also, but in Nasik they were raised by $16\frac{2}{3}$ per cent. This was done by increasing the existing rates by 6 annas in the rupee all round.

The Deshi system.—Under this system the rates were found by the application of the maximum rate to the classification annas.

The Dharwar system.—The Dharwar system of Rice classification comprised the classification of the soil according to the ordinary soil scale and of the water factor into water classes like those of *pâtasthal*. The assessment was worked out by means of *jantris* of the type illustrated on the pp. 402 and 403, vertical column 1 shewing the water classes ranging through half-classes from 1 to 6 horizontal column 2 the soil classification and the remaining columns the assessments resulting from the combination of the two.

These *jantris* were drawn up by the Superintendent personally, who, in fixing the rates of assessment thereunder, would vary the relative rates for the different combination of soil and water classes according to the local conditions in the manner illustrated in the case of Rice land in Kanara (*vide* page 389).

II—New Rice

The Dangi and Deshi systems.—New Rice under these systems was assessed either as Dry-crop or Old rice.

The Dharwar system.—(i) In Junnar and parts of Purandhar and in the Southern Maratha Country where the "Bankapur" system was adopted at Revision New Rice lands were assessed as Old Rice.

(ii) In the rest of the Deccan except Satara New Rice lands were assessed by the Dry-crop maximum rate which was applied to the classification annas as found by the process described in the chapter on Classification (*vide* page 298).

The Satara system.—In Satara New Rice lands, having been classed by the Old Rice rules, were assessed by means of a special *jantri*.

The system of calculation after 1909.

In 1909 at the time of the Second Revision Settlement of the Karajgi taluka of the Dharwar district orders were issued by the Settlement Commissioner, Mr. Pratt, introducing a new method of calculating assessments. Under this new system the old methods of calculation, either by a specially prepared *jantri* or through the medium of the maximum rate and the classification values, were abandoned and for it

substituted the system of calculating the new assessments by increasing the old assessments "by a proportional increment equivalent to the proportional increment of the new maximum rate over the old maximum rate." Thus, if the old maximum rate were Rs. 2 and the new rate is to be Rs. 2-8, an increase of 25 per cent., then, instead of framing a new *jantri* of Rs. 2-8 and working out the assessments laboriously thereby, according to the new method the old assessments will simply be increased by 4 annas in the rupee.

The advantages of this system, as explained by the Settlement Commissioner in his No. 3394, dated 28th August 1909, attached to Government Resolution No. 10380, dated 27th October 1909, are as follows :—

"This new method will result in a very great saving of time, labour and expense and will enable large savings to be made in the annual *akarband* budget at the disposal of the Settlement Commissioner.

"It will have the following further advantages :—

"(*a*) It will assist the Settlement Officer to form a clear idea of the meaning and effect of his proposals.

"(*b*) It will enable the public to understand without the least difficulty the exact effect of the proposed changes published in the Settlement Officer's notification, for the changes will be expressed in terms of so many whole or half annas to be added to or deducted from every rupee of the existing assessments.

"(*c*) It will greatly assist landlords and tenants in adjusting their rents after a Revision Settlement has been reduced and will tend to protect the tenant from an increase of rent out of all proportion to the increase in the landlord's assessment.

"(*d*) It will greatly assist the process of re-adjusting the distribution of the whole assessment of the survey number among the various holdings included in the survey number."

Dharsod.—At the same time a change was made in the system of *dharsod* or elimination of fractions from the kacha assessments. Under the old rules assessments were worked out according to the scale given on p. 381, by which assessments were worked out to the nearest 4 or 8 annas. Under the new orders assessments were for the future to be calculated to the nearest even anna.

These orders were sanctioned by Government Resolution No. 10380, dated 27th October 1909. The whole correspondence on the subject is published at the end of the Second Revision Settlement Report of the Karajgi Taluka, Selection No. DV, New Series.

The changes per rupee in assessment are now expressed to the nearest quarter anna R—1601-16.

When the increase is 33·3 per cent. in the maximum rate or 5 annas 4 pies in the rupee, it should be calculated and expressed at that rate and not to the nearest quarter anna—R. 7620/24 of 25-10-26.

CHAPTER X.

SURVEY AND SETTLEMENT RECORDS.

The two classes of records

SURVEY and Settlement Records, which, by the amended Land Revenue Code, are included among "land records," may be divided into two main heads, viz. :—

I—Preliminary, and

II—Final,

the former class comprising those which are used for preparation of the Settlement proposals, and the latter those which sum up the result of the Settlement after sanction.

I—PRELIMINARY.

The following are the chief Preliminary Records, divided into the three heads of Theodolite, Measurement Classification and Settlement. As the vernacular names of some of these records are often employed in official correspondence, these are given in Gujarati and Marathi, the Marathi terms being used in all the three Southern Surveys.

(a) Theodolite Records.

No.	Name.	In what Survey used	Vernacular term
1	Theodolite Field Book.	All ..	...
2	Traverse Patrak ..	All ..	...
3	Contour Map .	All ..	Parigh.

(b) Measurement Records

No.	Name.	In what Survey used	Vernacular term
4	Rough Field Book .	All .	M. Tipan Book. G. Kachi Book.
5	Fair Field Book .	All .	M. Kshetra Book. G. Paki Book.
6	Area Book	Deccan Konkan .	M. Vaslevar Book or Gunakar Book.
7	Rough Village Map.	All .	M. Kachha Nakasha. G. Kacho Nuksho.
8	Fair Village Map	All .	M. Pakka Nakasha G. Pako Nuksho.

Contains (1) sketches of survey numbers with shares or compartments in which the numbers are divided for the purposes of classification with the details of soil and water classification, and (2) the culturable and *kharab* area of each description of cultivation and the total culturable area of the numbers as finally fixed.

10. *Register of Garden Lands* .. M. Bagayat Takta.

This record contains information regarding the area irrigated, the crops raised in the irrigated portions, the sources of water-supply and all the other information necessary for the rating of *motasthal* and *pâtasthal* land. In it was also entered the assessment rate per acre of *pâtasthal* by the Settlement Officer personally.

(*d*) *Settlement Records.*

11. *The Classer's Register.*

This paper shews survey numbers, *pot* numbers, the tenure on which they are held, their total area, and the nature of the land, whether dry-crop, rice, or garden with the classification valuation per acre of each kind.

12. *The Kachha Sud.*

This document corresponds in the Konkan Survey to the Classer's Register of the Deccan. It contains the same details with columns for shewing the acre rates and the assessments which were filled in subsequently.

13. *The Pahani Sud.*

This paper shews the details of area for every field together with the old (*maji*) and new numbers attached to each and also the names of the occupants.

14. *The Darvari.*

In the *darvari* the survey numbers of the village were arranged in groups according to their classification valuation. Thus, under the head "16 annas valuation" all numbers of that classification value were brought and their areas added together; and so with all numbers classed at 15 annas 6 pies, 15 annas 0 pies and so on. This paper was an important one

for the Settlement Officer, since, by applying trial rates to the total areas under each head of classification value, he was enabled to work out the final rates which would produce the total assessment of the whole taluka. A separate *darvari* was, of course, prepared for each class of land.

Darwaries.

At second and subsequent revision settlements, no fresh darwaries need ordinarily be prepared. If a settlement Officer wishes to ascertain how a particular settlement rate will operate on a particular survey number or village or group of villages, he has only to raise the existing assessment in proportion to the increase in the maximum rate he wants to propose. In the rare cases, however, where reclassification either of whole villages or of any particular classes of land has to be done, the preparation of new darwaries will be necessary to enable the settlement officer to estimate the effect of the application of the proposed rates to these villages or classes of land.

II—Final Records.

As has been explained above, these records were prepared after the rates had been finally sanctioned and in them the whole settlement was summed up. Owing, however, to the changes in the revenue system brought about by the amendment of the Land Revenue Code by Act IV of 1913 and by the introduction of the new system of calculating assessments described in Chapter IX (*vide* page 404) the form and nature of these Final Records has been changed considerably of late years, though in most talukas the old forms are still current as there has been no opportunity of introducing the new forms as lately revised. It is, therefore, necessary to describe both sets of forms i e., those current before and those introduced after 1913.

(*a*) *Before* 1913.

Previous to the amendment of the Land Revenue Code in 1913 the occupant was the person whose name was entered in the Government records. But the only records in which an occupant's name could be officially entered at that time were those prepared at the time of settlement. Hence the final records prepared at the time of every new settlement had to

shew, not merely the new assessments, but also the names of the occupant of every survey number. Two kinds of final Record were, therefore, prepared—one the "simple assessment roll of the village" as Colonel Anderson called it, containing the details of the area, classification and assessment of each number; and the other containing, together with the area and assessment, the record of the names of occupants.

The Assessment Roll.—This was called in the Deccan and Gujarat Surveys the *Akarband* and in the Konkan the *Sud*. All these forms shew the survey numbers in order, and the area and assessment of each class of land within the number, but there is some difference in detail: e.g., the Gujarat Akarband shews the classification annas of each class which the Deccan *Akarband* and the *Sud* do not; again, the two kinds of *Akarband* have the *kacha* assessments per acre of each class which the *Sud* omits; and so on. These differences will be seen by an inspection of the examples given in Appendix VIII.

The Record of Occupancy.—Under section 108 of the Land Revenue Code as it stood before the amendments made by Act IV of 1913 the Settlement Officer was required "to prepare a register, to be called the Settlement Register, shewing the area and assessment of each survey number, together with the name of the registered occupant of such survey number". This register, as prepared in all the surveys, was that known as the *Faisal Patrak*. This paper contained the details required by the Act, the area and assessment being shewn for each class of land within each survey number.

After 1913.

By the amendments made in the Land Revenue Code by Act IV of 1913 the "registered occupant" was abolished and *occupancy made to depend simply upon possession. Henceforth* the only Record of Occupancy is to be the Record-of-rights. In the amended section 108, therefore, the "Settlement Register" to be prepared by the Settlement Officer is to shew "the area and assessment of each survey number with any other particulars that may be prescribed," the words "together with the name of the registered occupant of such survey number" having been eliminated. By this change in the law the necessity for keeping two separate survey registers has been done away with. In future, therefore, only one such register will be prepared, which is called the *Akarband*,

in all surveys. The new forms are shewn in Appendix VIII. They have been considerably simplified and made uniform throughout. At the same time an important improvement has been effected by bringing them into harmony with Village Form No. 1. Previous to the year 1913 this form was the Village Survey and Occupancy Register, combined in which, under the old revenue system, the names of the registered occupants appeared. But with the introduction of the new system and the constitution of the Record-of-rights as the sole Record of Occupancy the Village Form No. 1 has become simply the Village Survey Register and a copy of the *Akarband*.



PART III.

APPENDICES.

APPENDICES.



APPENDIX I.

THE VILLAGE COMMUNITY IN THE DECCAN

The main object of this appendix is to elucidate the history of the Village Community in the Deccan, firstly, because it would be impossible in the space at command to cover such a wide field of inquiry as the Presidency as a whole, but secondly also because the history of the Deccan Community is, in the writer's opinion, typical of that of, at any rate, the greater proportion of such Communities in the rest of the Presidency. It will, therefore, be possible, while dealing with the Deccan, to introduce illustrations derived from other Communities, thus obviating to a large degree the necessity for individual treatment It is necessary, however, to guard against the danger of assuming that community of type necessarily involves community of origin. That this may be the case is true; nevertheless, the ethnological evidence, upon which alone it would be possible to justify such an assumption, is too vague and scanty to allow of any satisfactory conclusion being arrived at upon the point at issue While, therefore, not putting such an explanation out of court, it will be better to take the safer course and ascribe the community of type to the action of a common environment, leaving the answer to the ethnological question conveniently vague

Turning now to the Deccan Community, it is pointed out in Chapter II of Part I that practically the only evidence upon which conclusions could be based is that of "survivals", and that the most important of these "survivals" for the present purpose are those relating to Land Tenure. The Land Tenures of which a study must be made, however, are not those of the present day, but of a hundred years ago, before the old Village Tenures had disappeared under the solvent action of the present system of Settlement Of these Tenures a detailed account is given in Chapter II That account may be summarized as follows —At the beginning of the nineteenth century, when the British first came into possession of the greater part of the Deccan, the chief forms of Land Tenure were the Miras and the Upri Of these, the former was a privileged tenure, the land held thereon being the "private property" of the Mirasdar, *i.e.*, it was heritable and transferable, its transfer being always attested by formal documents witnessed by the old hereditary Village and District officers. Further, the Mirasdar possessed what was practically an inalienable right to his land, being entitled to reclaim it, even after long periods of absence, from persons in actual possession. Thirdly—and this is an important point—there was joint and several responsibility for the Land Revenue of their holdings among Mirasdars resident in the village But the Tenure also carried with it social distinctions, the Mirasdars forming an aristocratic body having—what is called in the reports—"the freedom of the village" They had the first place at all feasts and festivals. they had the right to be the first

to receive *pan-supari* on all formal occasions, and so on. The Upri, on the other hand, was a mere tenant-at-will, cultivating Government lands at a yearly rental and having no heritable or transferable rights of any kind. Socially also they were the inferiors of the Mirasdars before whom they had always to give way.

These being the facts, the main question that calls for solution is as to the origin of this marked division of the cultivating classes into two distinct classes, since it is upon the answer that the view taken regarding the origin and history of the Village Community largely depends.

In commencing such an inquiry attention may first be directed to the meaning and significance of the terms "Miras" and "Upri". The term "Miras", in the first place, is not of Hindu, but of Arabic origin, and was introduced by the Mahomedans. Its meaning is "inheritance", and the word thus serves to draw attention to the most important feature of the tenure, *viz*, its heritable character. There seems to have been no Hindu term exactly corresponding to "Miras", but under the Hindu Governments the holders of this class of land were called "Thalkaris". Now the exact signification of this word seems to be uncertain. The ordinary rendering is "landholder", from "thal" a "field" and "kari" a "holder". But the word "thal" also means a "share", and, for reasons which will appear subsequently, the translation of "Thalkari" as "holder of a share" possesses far more significance than that which might attach to "landholder". The word "Upri", on the other hand, means [illegible] of
a man [illegible] he
verbal [illegible]
on the one hand and the landless "stranger" on the other.

The next source of evidence is that of tradition. The tradition among the cultivators was that, all over the Deccan, the whole of the village lands had originally been in possession of the Mirasdars, but that, owing to failure of heirs, family feuds or war, and the effects of famine and pestilence, a large proportion of these lands had in course of time fallen into the hands of Government, who had let them out to the Upri cultivators. The correctness of this tradition is upheld by Colonel Sykes (*Journal R. A. S.*, Volume 2, page 205) who points to the existence in almost every Deccan village of "thaljaras", *i e.*, ancient written records, shewing the division of the lands into "thals"—either "fields" or "shares"—with the names of their possessors. These records were, [illegible]

[illegible] preserved, though land itself had long passed into the hands of others. In other cases, however, persons claiming descent from the original holders were still found in possession of their ancestral fields. Assuming for the moment the accuracy of this tradition it points clearly to a time when the Miras was the only tenure and when the Upris, if they existed, were the tenants, not of Government, but of the Mirasdars.

Any direct and satisfactory answer to this question, however, must depend upon ethnological and historical evidence which is unfortunately not available. The question of the origin and early history of the Marathas is, in fact, exceedingly obscure. On the one hand there is a tradition in Upper India that the Marathas are of Persian origin and that the Chitpavan Brahmins were their sun-priests. (Sir Talbot Baines, *Encyclopædia of Anglo-Aryan Research*, Vol. II, p 5.) Later ethnological inquiry is inclined to find in them a large Scythic element, as in the Kanbi of Gujarat. If this is the case then the Marathas are the descendants of some of those tribes of early Scythian invaders like the Gujars and others who have played such an important part in the early history of Western India, and whose advance from north to south drove before them the Dravidian races, which had preceded them, into the position which they now occupy in the south of the Peninsula.

The Deccan Village Community of the early 19th century was, however, of too advanced a type to form a safe basis from which to argue its own original form and character, as could be shewn by several lines of argument It is necessary, therefore, to turn to other Communities which, while preserving what is clearly an older type, yet present such strong features of resemblance with the Deccan form as to afford grounds for a reasonable assumption that they belong to the same class, evolved probably under the influence of a similar environment

The first examples of more primitive forms of Community from which analogies may be drawn are those of the Rajput and Koli-Thakarda organizations of the Ahmedabad District which are now included under the vague term "talukdari". As has been previously pointed out in Chapter XII of Part I, pp 224–228, the Rajput talukdars comprise Vaghelas, Chudasamas, Jhalas, Parmars and others who are the descendants of the old conquerors of the country, the Koli-Thakardas being of mixed Koli and Rajput descent The chief characteristics of village organization among these peoples, which are of importance for the present purpose, are the following —

(*a*) Among the Rajputs the people is divided into two classes, *viz.* on the one hand Girasias and on the other Kardias, Narodas and others, the former comprising an aristocratic class and the latter their vassals

(*b*) The social distinction is marked by the usual signs already noted in the case of Mirasdars and Upris, by hypergamy and the social position of the women generally, the Girasia women being *pardahnishin* and not being allowed to re-marry while the contrary is the case among the Kardias and inferior classes

(*c*) Among the Koli-Thakardas a similar distinction is made between the Thakardas who are of mixed Rajput and Koli descent and the pure Kolis who are their vassals

(*d*) The Girasias and Thakardas form an aristocracy based upon the possession of land and upon descent They alone possess land, the Kardias, etc , and Kolis holding from them on a kind of feudal tenure.

(*e*) In addition to these there are non-Rajput or non-Koli cultivators who hold lands merely as tenants-at-will.

(*f*) In descent the Girasias are generally the offshoots (*bhayats*) of the larger estates (*gadis*) of their own clan—the Vaghelas from Sanand, the Chudasamas from Gamph and so on, from whom they also hold on a kind of feudal tenure. The Thakardas are similarly connected with the four original *gadis* of Bhankoda, Chaniar, Kukvav and Dekavada.

(*g*) The estates may be divided into 3 classes, *viz.*, (1) primogeniture estates (*gadis*) which pass undivided to the eldest son or nearest male heir, (2) sub-divided estates which on inheritance are divided among the sons or other male heirs in—usually—equal shares, and (3) joint estates which are the joint property of the holders and not sub-divided by metes and bounds, the produce only being shared.

(*h*) The village lands are usually divided into main sub-divisions called '*patis*' and these again into smaller sub-divisions, the former representing an original family division and the latter the subsequent partition thereof on inheritance.

(*i*) The Girasias and Thakardas themselves are generally averse from cultivation as degrading and leave that work to their vassals and tenants [illegible]
—they [illegible]
to whic[illegible]
their re[illegible]
cultivators.

From the account given above it will be seen that the Communities described present analogies with the Deccan village system from which certain inferences may reasonably be drawn. Elphinstone states in his *History of India* that the tradition in the Deccan was that the country was originally divided into estates under small Rajas. It is also a matter of common knowledge that the Marathas are still divided into two classes, *viz.*, the Marathas proper and the Kunbis, with all the marks of social distinction noted in the case of the Rajput and Thakardas on the one hand and the Kardias, etc., and Kolis on the other.

It is, therefore, a reasonable inference that what is true of the one is true of the other, and to conclude that the Thalkaris comprised the aristocratic class of land-holding Marathas and that the Kunbis were their vassals and tenants. It might also perhaps be inferred that the Maratha landlords were the *bhayats* of the Rajas or heads of the class who possessed the large estates or *gadis* into which the country was traditionally divided.

Then, when the village system broke down for the reasons already given, the Thalkaris under the name of Mirasdars sank to the position of cultivators themselves, though still retaining their superior social status and the Upris became the direct tenants of Government.

These conclusions are reinforced by the study of another tenure of Gujarat, *viz.*, that of the Kunbi villages.

The Kunbi cultivators of Gujarat were—and for social purposes still are—divided into two classes, a privileged and a non-privileged class, [illegible] of the Mirasdars [illegible]. The Gujarati [illegible] word "Pati", which is the same word as that used for the main sub-divisions of Girasia estates, means "share" or "division" and the "Patidar" is the holder of a "share" If, therefore, the word "thal" be taken to mean "share" also, the terms "Thalkari" and "Patidar" exactly correspond In the great majority of the Gujarat villages the form of the Community, when the British took over the administration, was the same as that found in the Deccan, in that the holdings were separate and the waste lands were *in the possession of Government, but luckily, owing to a series of causes* into which there is no need to enter here, some few villages had managed to retain a form of community which seems undoubtedly a more primitive type. These are the Narvadari villages which, under the protection of the Narvadari Act, still maintain their ancient characteristics As described by Mr. Pedder (Bombay Selection No. CXIV, page 4) the main features of this Tenure were as follows —

(i) The whole village, including the waste, was held by a body of Joint Proprietors called "Narvadars" This body consisted of descendants of original proprietors together with others who had obtained their shares by purchase, marriage or other form of admission.

(ii) The village lands were divided into large shares called "mota bhags" (large or main divisions), comprising the original sub-divisions, which had again been sub-divided into "peta bhags" (smaller divisions) by inheritance.

(iii) In addition to these sub-divisions there was usually an area of land held in common called "majmun", which was available for partition—and in some cases was partitioned though still called "majmun"—or leased on behalf of the Community, or used for grazing, etc

(iv) Where such common lands existed, they were managed by a Committee consisting of the heads of the "mota bhags" acting for the rest

(v) There was joint liability for the Land Revenue among the whole body of proprietors, though the manner in which this liability was distributed differed in individual villages

(vi) Cultivators other than the proprietary body were their tenants and were divided into two classes, *viz* permanent tenants and tenants-at-will

This is the primitive form from which the unorganized type represented by the ordinary Kunbi village is considered by Mr Pedder to have developed, a conjecture which is countenanced by the existence in all Kunbi villages of village officers called "Matadars" who have the right and obligation to assist the Patel in the execution of his duties and have a share in the emoluments of his office. These privileges are confined to certain families, called "Matadari" families, within each village, and the

Matadars are, in all probability, the representatives of the old Committee consisting of the heads of the "mota bhags".

The general resemblance between this form of tenure and those previously described is obvious and may safely be assigned to similar causes. It may, however, be objected that the Kunbis did not come to Gujarat as conquerors but as cultivators or farmers of the revenue; that there are no traces of Kunbi *gadis*; that the Kunbis are Sudras not Kshatriyas and hence that the relation of vassalage could not have existed between the Kunbis and Patidars.

To these objections it may be sufficient for the present purpose to reply that though the Kunbis are not Rajputs now, yet they claim a Rajput descent; that ethnology recognizes their Scythian origin, and that in this case their village organization, which was formed outside Gujarat, may well have been based on the same principles as those underlying that of the Marathas and Rajputs.

The last subject that can be touched upon here with reference to the Deccan Community is the important question of whether this and other similar Communities were in their origin joint or several, *i.e.*, did the village proprietors originally hold the whole area jointly or were their shares divided off *ab initio* by metes and bounds? This question is discussed at length by Mr Baden Powell in the work to which reference has already been made. His conclusion is that the idea of the joint Community is an invention of Sir Henry Maine, that where it exists it is a local freak and has often merely evolved out of an original severalty village which he considers to be the almost universal type.

It is naturally impossible to go into the arguments of this eminent authority in the space at command, but it may perhaps be permitted to note that, in respect of the question now under consideration, there is a certain amount of evidence the other way to which due weight must be given. Thus, in his notes on the narvadari tenure, Mr. Pedder, after careful inquiry, gives it as his opinion that "at first the proprietary body probably held the land absolutely in common, agreeing at the beginning of the season what each should cultivate". A still stronger piece of evidence, however, comes from Madras in the shape of the so-called "Pasangkurei" tenure which, as will be noted from the following extract from a minute of the Board of Revenue, dated 5th January 1818, was also termed Mirasi by the Mohamedans, thus signifying their recognition of its similarity with the Deccan form of tenure. It will further be noted that the history of this tenure is much the same as that which has been conjectured for its Deccan counterpart.

"Pasangkurei in Tamil and Saradayam in Sanskrit are terms both [illegible] that particular joint [illegible] Tamil country and [illegible] under this system the Mirasi right to any particular spot of cultivated land in the village is not vested in any individual; the Mirasi of the entire cultivated lands attached to it, like that of the common waste and fallow lands, belonging to the whole body of Mirasdars, each in porportion to the share or parts

of a share he holds being entitled to participate in the common property. The number of shares belonging to each Mirasdar being known, the lands are in some cases cultivated by the whole in common, and the net produce, after payment of tax, is divided according to the share of each In others the Mirasi land itself is divided, either annually or at every five, six or ten years, the fields of which the Mirasi is to be held for that period being fixed by drawing lots." The minute next proceeds to shew how this joint system has been broken down in parts of the Presidency by the voluntary action of the landholders, remarking :—"In many villages, however, especially in those of Tanjore, Tinnevelly, Madura, Dindigul and the other provinces to the south of the Colleroon, the Mirasdars, instead of dividing the cultivated lands of the village periodically, have declared the division permanent and have thus converted the ancient collective tenure into one of severalty"

It is further noted that the Tamil Mirasdars, like the Patidars, had two classes of tenants, permanent and temporary, but that, owing to the oppression of the Mahomedans, most of the Mirasdars had been reduced to a condition which, except in name, differed but little from that of the permanent tenants, the reasons given being that the land tax absorbed all the rent so that the Mirasdars, unable to obtain tenants for their lands, abandoned them.

To sum up, the conclusions, which may tentatively be drawn regarding the origin of the Deccan Village Community in the light of the evidence given above are the following —

(1) that the Village Communities may probably have been the result of the settlement of tribes and clans of Scythian origin,

(2) that the villages themselves were owned by bodies of aristrocatic proprietors called Thalkaris, consisting of the *bhayats* of the heads of the various clans,

(3) that these bodies may possibly have held their lands jointly in one or more of the forms in which joint possession is possible, but that subsequently the village lands were sub-divided into definite shares on the same lines as those described in the case of the Rajput and Kunbi settlements;

(4) that the tenants of the Thalkaris were the vassal Kunbis, who on the general break-up of the Village Communities became the tenants of Government under the name of Upris.

It may finally be noted that this appendix only professes to deal with he Village Community so far as the origin of the Miras and Upri tenures concerned If the subject were to be treated as a whole it would be [illegible] other questions, such as the origin of the patel- [illegible] alled "Bara [illegible] id, however, hese questions have had to be left aside and the subject treated in the imited aspect of the Miras and Upri tenures only.

APPENDIX II.

DHARA OF PRANTIJ FOR SAMVAT 1880 (A. D. 1824)

Assessment of Government Lands.

In certain divisions where the land is manured the kharif produce in general paid one-half share, and in others where the land is not manured two-fifths. A tract of manured land, from which the Kasbatis enjoy a "sokri" or fee, paid one-third share to Government; ground at a distance from the village paid two-fifths and one-third variously; land newly recovered from waste paid one-fifth or one-fourth the first year, and one-fourth or one-third the second; and some loose fields of bajri grown in a ravine paid one-fourth share crops grown in the *bok* (a large low-lying, marshy area near the town); on "kuvetar" or irrigated land paid two-fifths, or one-third if the rainfall were scanty; makai or Indian corn in the same situation paid one-third or one-fourth; rice paid. in general, one-fourth.

The "babtis" or extra cesses to which the above crops were liable are alike, and shewn below, as deducted from the general heap prior to the division of the shares :—

"*Sarkari Babti*" *or Cesses on account of Government.*

1½ *shers* per maund as "Sarkari Siri" or fee to Government

¼ *sher* per maund as "Tolamni" or fee on weighing the grain.

6 *shers* per 100 maunds as "Khitmatgari" or service fee.

"*Parbhari Babti*" *or Cesses for other persons and purposes*

¼ *sher* per maund as "Gam Kharch" or for village expenses

¼ *sher* per maund as "Desai Dasturi" or fee to the Desais (From tal and vari crops this is ⅛ *sher*.)

¼ *sher* per maund to the Havildar, who also receives ½ maund of grain in the husk, and 20 bundles of bajri karbi (straw) per plough. The Pagis receive precisely the same.

⅛ *sher* per maund to the Kotval, who also receives 15 *shers* of grain in the husk, and 15 bundles of bajri karbi per plough.

¼ *sher* per maund as "Tolamni" to the Bania who weighs the grain.

1 *sher* per plough as "Thakormandir" or donation to the mandir (temple), in the town.

4 *shers* per maund allowed as "Khor" (feeding expenses) to the cultivators themselves.

In addition to the above, the rayats paid from their own share 1 *sher* per maund of grain in the Government share to Government, and also ¼ maund per plough to the carpenter, the same to the blacksmith, the leather dresser and the barber. When the amount of produce was

determined by kaltar* in place of makhal† the only babtis exacted were 1 *sher* to the Government and 1 *sher* as tolamni per maund of grain in the Government share, paid from the rayat's share alone.

Tobacco and ringni paid a bigoti or money payment per bigha of five rupees; vegetables in general of 2½ rupees. Four bighas watered from a particular well, called "Sidu Bhatavala", paid a gross sum of 9½ rupees; and four other bighas sown with tal by Patel Kullan paid a gross sum of 12 rupees. Some bajri, pavta and banti grown in a ravine paid 1 rupee on each kodali or pickaxe used in turning up the ground (no plough being employed), together with 5 *shers* of grain to the Patels and 5 also to the Desais Singora grown in the dry bed of tanks paid one-third share to Government, after the deduction of a ¼ *sher* per maund for the Desais, the same for the Patels, the Pagis and the Havildar, and ⅛ *sher* for the Kotval.

Rabi and hari crops were assessed as follows:—

Wheat and barley grown in the large bok paid one-fifth; chena one-sixth; kang and makai one-seventh, wheat or barley grown in the lesser bok paid one-sixth; chena one-seventh, kang and makai one-eighth Of the produce of land cultivated for the first season with rabi, one-sixth share only was taken in the larger, and one-seventh in the lesser bok. Wheat, barley and chena, irrigated from wells on the high grounds in the vicinity of the kasba, paid one-eighth, and at a distance from the kasba one-ninth, kang and makai in the high grounds paid one tenth

Government lands watered from alienated wells paid only one-half of the above shares to Government.

The following were the babtis, which were deducted from the general heap of the rabi produce prior to the divisions of the shares —

Parbhari Babti

- ¼ *sher* per maund as tolamni.
- 10 *shers* per kos (water-bag) as gam kharch
- 10 *shers* per kos (water-bag) as Desai dasturi The same to the Havildar, the Sutar, the Lohar and the Hajam
- 20 *shers* per kos to the Mochi.
- 5 *shers* per kos to the Pagis
- 4 *shers* per kos to the Kotval.
- 5 *shers* per maund allowed as khor to the cultivators.

If the produce be estimated by kaltar, the above babtis were paid from the cultivator's share alone

* *Kaltar*.—By this term is meant the estimation of the value of the standing crop in the field, the assessment being taken as a proportion of the estimated total produce

† *Makhal*.—This term connotes the alternative method by which the actual produce was taken to the village grain yard and divided on the spot.

Alienated Lands.

"Udhad Salamis" or payments in the gross were made for certain tracts of land as below :—

554½ bighas paid 61 rupees and 12 maunds of grain.
664½ bighas held by Rajputs paid 4 rupees and 12 maunds of grain.
84 bighas of pasaita held by the Patels paid 50 rupees.
417½ bighas held by the Kasbatis paid 20 rupees.
661 bighas held by the Kazi paid 3½ rupees and 12 maunds of grain.
80½ bighas held by Vartania Rajputs paid 23½ rupees.
32 bighas held by Boras paid 8 rupees and 3 maunds of grain.
20 bighas also held by Boras paid 1 rupee.
12 bighas paid 4½ rupees held by Chaora Rajputs.
5 bighas paid 1¼ maund of grain.

The seven Patels were allowed to cultivate rabi crops upon the alienated lands as far as they could with 7 ploughs ; but if they exceeded this, they paid ½ rupee on each additional plough The Kunbis paid ½ rupee, and other classes ¼ rupee, per plough employed in raising rabi crops on the alienated land.

The alienated wells were 35 in number, and 21 of them paid 30 *shers* of grain per kos as a fee to Government

"Veras" or Taxes—Plough Veras

32½ ploughs,	paying Rs.	13	each, realized Rs.	423½
2 „	„	12½	„	25
7½ „	„	12	„	90
1 plough	„	11½	„	11½
9 ploughs	„	11	„	99
5½ „	„	10	„	55
½ plough	„	8	„	4
1 „	„	7	„	7
1 „	„	6½	„	6½
1 „	„	6	„	6
4 ploughs	„	4	„	16
1 plough	„	3	„	3
66 ploughs paid				715½ rupees

being Rs. 11-1-8 per plough.

"Udhad" Veras, or gross payments by certain classes :—

Kunbis	.. Rs. 14½
Suthvaras	.. „ 9¼
Bambis	.. „ 52
Total ..	Rs. 821¼

To defray the gam kharch, or contingent expenses of the village, the Patels levied Re. 1 per plough, or a larger equalized sum if this should not be sufficient to cover the charge. They also levied Rs. 25 from the alienated landholders for the same purpose.

APPENDIX III.

Revenue Survey and Assessment: Exposition of the policy of Government in regard to — Protection from Assessment of the increased value of land due to improvements made by the occupants.

No. 2619.

REVENUE DEPARTMENT.

Bombay Castle, 26th March 1884.

Resolution of Government.

His Excellency in Council desires in this resolution to state the principles by which the Government regulates its action in regard to that portion of the produce of land which by custom belongs to the State that is to the public, and forms part of the public revenues devoted to the cost of governing the country.

2 The law is contained in the Bombay Land Revenue Code (Act V of 1879) which repealed and took the place of the Bombay Survey and Settlement Act I of 1865. Under section 214 of Act of V 1879 are framed rules for carrying out the purposes of the Act which after publication have the force of law.

3. By section 69 of Act V the right of Government to mines and mineral products in all unalienated land is expressly reserved wherever it has not become vested in the occupant of such land

4. Section 37 enacts that "the bed of rivers, streams, nalas, lakes and tanks, and all canals and water-courses, and all standing and flowing water .. which are not the property of individuals, or of aggregates of persons legally capable of holding property, and except in so far as any rights of such persons may be established in or over the same, and except as may be otherwise provided in any law for the time being in force, are, and are hereby declared to be, with all rights in or over the same, or appertaining thereto, the property of Government."

5. Section 55 of Act V gives power to fix rates for the use of water the right to which vests in Government. The Bombay Irrigation Act VII of 1879 gives power to charge rates for the use of canal water But in these cases the rates are not part of the assessment of land to the ordinary land revenue, the water being such as is capable of treatment as a distinct marketable commodity the property of Government and purchasable for agricultural uses.

6. These rates being left aside, there remains the assessment of the ordinary land revenue according to the productive quality and inherent advantages of each plot of ground known as a survey number.

7. By section 73 of Act V the right of occupancy of land is declared an heritable and transferable property and by section 68 an occupant under a survey settlement is entitled to the use and occupancy of his land in perpetuity, conditionally on the payment of the amounts due on

account of the land revenue for the same. It is manifest then that the security of the tenure depends on the manner in which the assessment of the land revenue is regulated.

8. Section 95 of Act V gives power to the Governor in Council to direct the survey of any land with a view to the settlement of the ordinary land revenue and to declare the assessment fixed for a term of years (section 102). The Governor in Council may (section 106) at any time direct a fresh revenue survey or any operation subsidiary thereto, but the assessments cannot be enhanced until the original term of settlement has expired.

9. At the second or "revision" survey settlement, the assessment fixed at the first or "original" survey settlement may be altered partly by correction of the survey record or measurement and classification, and partly with regard to the increased value of the land from a rise in agricultural profits

10. When the survey record has been made correct, it remains an authoritative and sufficient standard of the relative value of survey numbers or fields, and the first reason for a revision survey ceases to exist. The second reason is permanent, because agricultural profits are always subject to increase and decrease. But this part of the revision of assessment may be carried out without the employment of a Department of Survey when the survey record is once complete.

11. The completion of the survey record therefore by revision where it is now imperfect is one operation which will improve the position of the survey occupant, by putting an end to such disturbance and uncertainty as are inseparable from the re-measurement and re-classification of soils

12 Revision has hitherto been undertaken only when an original settlement period expires If this practice were maintained the operation would be greatly protracted and the highly skilled survey establishments would be dissipated for want of full-time employment. It has therefore been resolved that the completion of the survey record should be carried out at once with the full strength of present establishments, and it is estimated that in this way all field operations of the survey in this Presidency may be completed within a period of eight years. Current settlements will remain unaffected until their term expires as is stipulated by section 106, Act V: "no enhancement of assessment shall take effect till the expiration of the period previously fixed" for the currency of a settlement by the Governor in Council under section 102.

13 Thus far the duration of revision operations. Next as to their scope The policy of this Government has always been opposed to the re-measurement and re-classification of land in revision survey beyond what is absolutely necessary to obtain a correct survey record The Governor in Council has therefore insisted that before any re-classification of soil is permitted, the reasons should be fully explained by the Survey Department and that no such operations should be commenced without the express sanction of Government. It has been found, however, that in

some districts a partial or even a complete re-survey and re-valuation was inevitable. The reason of this is that in the first years of the Revenue Survey the work was too imperfect to be accepted as a standard. The classification of soils adjudged to be culturable was faulty. The value of the richer soils was under-estimated and that of the poorer soils over-estimated, and the extremes of the scale were not adjusted to the difference in productive capacity. It was found on revision that to obtain a just standard of relative value it was necessary to raise the better soils and to lower the poorer soils about one class, or 2 annas in the rupee scale. Again, the appreciation of the vast area then lying out of cultivation was rough and indiscriminating, so that large plots of easily cultivable land were thrown into survey numbers and left unassessed under the name of "pôt-kharab".

14 Therefore, since the commencement of operations for revision in the Poona district in 1867–1868 it has been incumbent on the Government, in the interest of the public revenues, to sanction for each tract brought under revision such extent of re-valuation as was proved to be necessary, amounting in some tracts to a partial re-measurement and re-classification and in others to measurement and classification *de novo*. As the early settlements have nearly all expired, the revision is almost complete in those areas in which a virtually new survey was necessary. The work will be in future confined to partial re-measurement and re-valuation, and when this is completed, re-measurement and re-classification will cease altogether to be operations attendant on a revision of assessment.

15. Moreover, as the revised survey record is sufficiently correct for the purposes of a standard, His Excellency the Governor in Council has resolved that it shall be accepted as final and not subject to any future general revision. This resolution secures from any further general alteration of the valuation of land for revenue purposes the whole of the Southern Maratha districts, except a few talukas, and the greater portion of the Deccan. In the districts of Ratnagiri and Kanara, in which original settlements are still in progress, the work of the survey is sufficiently accurate to admit of the extension of the same guarantee to them. The power of Government to direct a re-valuation of soils will therefore be exercised almost solely in the province of Gujarat, the districts of Thana and Kolaba, and in Khandesh and Satara, and in these it is believed that a partial re-survey will suffice

16. Before leaving this part of the subject it is necessary to speak of the arable land which under the name of "pôt-kharab" was included unassessed in survey numbers at the early settlements. This Government has been inclined ever since 1874 to leave the profit of bringing such land into cultivation to the occupant. But it was found that the area thus treated in the early settlements was so large that to forego assessment of it would occasion an unjustifiable sacrifice of the claims of the public revenue. Action in this matter was therefore postponed. But the settlements marked by lavish indifference to pôt-kharab have now come under revision. About the year 1854 a more careful system was introduced under the rules of the Joint Report. His

Excellency the Governor in Council has therefore resolved that the Settlement Officers shall, in the operations for revision settlement of land originally settled after 1854, as a general principle accept and confirm as exempt from assessment whatever area was entered as *pôt-kharab* in the classification of [illegible]
a general rule, land [illegible]
in a survey numbe[illegible]
left unassessed at the revision settlement for the benefit of the occupant.

17. This concludes the review of the operations proposed for the completion of the survey record. It remains to examine the law and principles by which the periodic increase of land revenue assessment is regulated, and particularly those which protect from assessment the increased value of land due to improvements made by the occupant.

18. First with regard to the law, Bombay Act I of 1865 contained the following provision —

"Section 30 —It shall be lawful for the Governor in Council to direct at any time a fresh survey or classification of soils or revision of assessment, or all or any of these combined, but the assessment so revised [illegible]

owners or occupants from private capital and resources during the currency of any settlement under this Act, but with reference to general considerations of the value of land, whether as to soil or situation, prices of produce, or facilities of communication"

This section is re-enacted as section 106 of Bombay Act V of 1879, but the following section adds a proviso —

"107 *Nothing in the last preceding section shall be held to prevent* a revised assessment being fixed—

(a) with reference to any improvement effected at the cost of Government, or

(b) with reference to the value of any natural advantage, when the improvement effected from private capital and resources consists only in having created the means of utilizing such advantage, or

(c) with reference to any improvement which is the result only of the ordinary operations of husbandry"

19. Attention will now be directed to section 107.

The principles which the Governor in Council desires to maintain are :—

(1) That enhancements of assessment shall be based on "general considerations" and not on the increase of value in particular fields.

(2) That the occupant shall enjoy the entire profit of improvements made at his own cost

20. These principles being applied to the interpretation of section 107 it is observed that "reference to general considerations of the value of land" means reference to increased value due to extraneous causes distinct from the result of expenditure of money or labour by the occupant. For instance, a railway which affords a better access to markets is such a cause Its value may be judged by examining the scale of prices over a long period and noting the proportion of increase which appears to be permanent Again, by obtaining returns of the selling and letting value of land.

21. The rise in value may be due to improvements made by the landlord—in this case the State. Clause (*a*) enacts that such improvements effected at the cost of Government may be considered in fixing a revised assessment.

22. The interpretation of clause (*b*) is more doubtful and will be further considered below.

23. Clause (c) was intended to meet the case of *pót-kharab* and also would apply to cases where waste land has been assessed at very low rates in order to encourage its cultivation. This latter case, however, does not occur in Bombay and the clause is of no practical use (to meet it) Another course is taken under rules subsidiary to Act V with—

(1) land the bringing of which under the plough "will be attended with large expense";

(2) the reclamation of salt land.

Such lands are given by contract free for a certain term and at the end of it on a rent gradually rising up to the full assessment.

24. So far then in this Presidency the conditions on which assessments are enhanced on revision do not affect the value of improvements made by the occupant. The case of these has now to be considered. In other words, what is the effect of clause (*b*) of section 107 on the assurance given in section 106 ?

25. His Excellency in Council desires to regulate the action of Government in this matter by the broad principle that the occupant of land pays for the use of all advantages inherent in the soil when he pays the assessment on the land Among inherent advantages he would include sub-soil water and rain water impounded on the land, and he would secure to the occupant altogether free of taxation any increased profit of agriculture obtained by utilizing these advantages through expenditure of labour or capital.

26. His Excellency in Council has no desire to claim any part of such profit for the State either immediately or after a certain term of exemption. There may be provinces where some reservation is necessary, but in the circumstances of Bombay His Excellency in Council is convinced that the material interests of the country will be more truly

taxed by the State, than they would by reserving a discretion to tax these profits attended by a feeling of uncertainty when and how they may be taxed. The encouragement of higher cultivation in a fully cultivated province is of infinitely greater public importance than the small prospective increase of the land revenue which may be sacrificed by guaranteeing to the occupant the whole profits of his improvements.

27. This Government has already acted on the broad principle stated above. Wells are the universal and most important means of utilizing inherent advantages. The Government in 1881 issued* a general assurance that section 107(*b*) of Act V of 1879 is not held applicable to wells constructed at the expense of the owner or occupier of the soil in which they are dug. This rule was in fact partially in force (as a rule for guidance in revising assessments) as early as 1871 : it was extended to the whole of the Deccan and Southern Maratha Country in 1874 : and was made a rule of general application in 1881.

*Government Resolution No. 6682, dated 10th November 1881.

28. It is clear, therefore, that as regards the commonest form of agricultural improvement the Government has given complete assurance to any occupant who proposes to construct a well, that the increase of profits resulting from it will not be considered as a ground for increasing the assessment on revision. If it is argued that this assurance is not in the terms of the law but in an executive order, on the other hand it is to be remembered that the revision settlements made in subjection to it are unalterable for 30 years It was also notified in 1881 that if any other kind of improvement is contemplated, Government will decide at the request of an applicant for an improvement loan, whether section 107, clause (*b*), applies to his project or not. The same assurance can of course, be obtained if the improvement made is by means of private capital.

29. These executive orders were promulgated at a time, when according to the custom of preceding rulers, old wells existing at the time of the original survey settlements, and in many cases known to be the property of Government, had been subjected to special water assessment. With regard to these it was in 1874 made a rule applicable to the whole of the Deccan and Southern Maratha Country, that in the case of old wells constructed before the first settlement, all special water assessment should be abandoned, and only the maximum dry-crop rate should be levied. This rule was made of general application in 1881.

30 These rules are important at the present time in connection with operations for revision of the original settlements in the province of Gujarat which are about to be commenced.

31. His Excellency in Council entirely concurs in the soundness of the principle approved by the Government of Bombay in 1866 and 1868 that the assessment by a light rate of the water-producing qualities of the soil is preferable to the system of assessing highly only such lands as are found to be already supplied with wells. In a resolution,

Resolution, Revenue Department, No 2110, June 8th, 1886.

Revenue Department, of March 27th, 1868, the views of the Government were thus expressed :—

"In regard to special taxation of wells, it is said with truth that water is, like mineral wealth, fairly taxable by the landlord when used by the tenant. His Excellency in Council, however, considers that the first principle of its taxation should be that which governs our taxation of the land itself, that is the capability of being used rather than the use itself. If water of good quality be easily available near the surface it is more reasonable to tax such land by light additional rate, whether the water be used or not, than to lay an oppressively heavy tax on those who expend capital and labour in bringing the water into use".

32. Difficulties were experienced in carrying these views into effect, but the hope was expressed that when the time for a revision settlement should come, means might be found for abandoning the special rates imposed on existing wells. The subject has again been under the consideration of Government and sanction has been given to the adoption in the survey settlement of parts of the Panch Mahals of the plan of taxing sub-soil water advantages by a scarcely noticeable increase of the soil rates on the land possessing such advantages, all special water rates being abandoned. The results of this experiment will form a guide for the introduction of a similar reform in the revised settlements of Gujarat.

33 In the Land Improvement Loans Act of 1883, section 11, it is enacted—

11 When land is improved with the aid of a loan granted under this Act, the increase in value derived from the improvement shall not be taken into account in revising the assessment of land revenue on the land

Provided as follows :—

(1) Where the improvement consists of the reclamation of waste land, or of the irrigation of land assessed at unirrigated rates, the increase may be so taken into account after the expiration of such period as may be fixed by rules to be framed by the Local Government with the approval of the Governor General in Council.

In the debate in Council on this section it was explained that the proviso has regard to such circumstances as those of large tracts in the Punjab, where there is a very large amount of waste land unoccupied and a very sparse population. The land in its unirrigated state is of very little value and is assessed at about one anna per acre, but as soon as water is brought in, it can be assessed at 14 annas or one rupee per acre. But in districts where the land is fully cultivated and where there is a very small margin of waste and a very full population it was held that the section was properly applicable without the proviso. In Bombay, provision is made for bringing land into cultivation under special difficulties and for the reclamation of salt lands by agreements or leases under which the land is given for a certain term rent-free, for a further term at a low rate per acre, and is then assessed like other land adjoining. The land when brought up to the level of ordinary cultivation is thus assessed at the

ordinary and not at a special rate in pursuance of a contract with the reclaimer. Except in these special circumstances, land is not in this Presidency assessed below the value of its natural adv[illegible]

[illegible]

irrigation of land assessed at unirrigated rates" will at any period be taken into account in estimating the agricultural profits on which an increase of assessment will be based.

34. His Excellency in Council is led by these remarks to consider whether the three clauses of section 107 of the Land Revenue Code are necessary for the security of the land revenue. Having regard to the power reserved under section 55 to fix rates for the use of the water of streams and tanks which are vested in the Government, and under the Irrigation Act to charge rates for canal water and percolation and leakage rates, to the policy declared with reference to sub-soil water drawn from wells and to the system of reclamation leases described above, His Excellency in Council considers that section 107 or at any rate clauses (*b*) and (*c*) are unprofitable to the land revenue. If in some case, not at once perceptible, an increase of land revenue might be claimed under these clauses without violating any of the pledges given by Government from time to time, and this is very doubtful, His Excellency in Council is satisfied that no such advantage is comparable to the disadvantage of retaining on the Statute-book a proviso which is of such doubtful significance as to be capable of discouraging the investment of capital in agriculture. The repeal of section 107 in whole or in part will, therefore, be taken into consideration.

35. The next point to notice is the limit which Government imposes on the percentage by which the land revenue assessments may be enhanced by the Survey Department on revision.

36. By Resolution, Revenue Department, No. 5739 of October 29th, 1874, the following regulations were laid down for certain districts in the Deccan :—

"*1st.*—The increase of revenue in the case of a taluka or group of villages brought under the same maximum dry-crop rate shall not exceed 33 per cent.

"*2nd.*—No increase exceeding 66 per cent. should be imposed on a single village without the circumstances of the case being specially reported for the orders of Government.

"*3rd.*—No increase exceeding 100 per cent shall in like manner be imposed on an individual holding.

"It is desirable here to state the principles which should be adopted in dealing with the last description of increases Putting fraud or obvious error in the calculation of the original assessments out of the question, these excessive increases in individual cases will be found to be due to one of three causes :—

"*1st.*—To the assessment of land which was deducted by the original survey as unarable and unassessed, but nevertheless included within the limits of the original assessed number.

"*2nd.*—To enlargement of the original assessed number by portions of neighbouring land unassessed at the original settlement having been with or without permission encroached upon by the rayats and cultivated together with the original assessed numbers.

"*3rd.*—To the alterations that have been made (1) by the adoption of a different valuation scale and (2) by putting a higher value on the soils themselves.

"As regards the second cause, His Excellency in Council is of opinion that lands so appropriated must be regularly valued and assessed, no matter what increase in assessment may thereby result.

"As regards the last cause, it must be borne in mind that the officers employed in the infancy of the survey worked on varying scales of valuation, and that the systems they severally adopted were consequently more or less tentative or experimental. It was not till after the lapse of a few years that the then Superintendents of Survey were able to fix upon a uniform system of valuation which was subsequently embodied in the Joint Report. However much, therefore, His Excellency in Council would wish to avoid extreme increases in the assessment on individual holdings, there can be no doubt about the superiority of the Joint Report system, and of the absolute necessity for determining and upholding a classification of soils based as far as possible on correct and uniform data.

"It is understood that the Joint Report system was generally adopted a very few years after the introduction of the early assessments, and that consequently no alteration will be required to be made at future revisions. Explanations on this point should, however, be clearly given in future, and also for each future revision in respect to the extent to which it has been found necessary to alter and depart from the classification value originally fixed on the different descriptions of soils. The smallest extent of variation from the old valuation consistent with the principle laid down in the last paragraph should be permitted, and the greatest care should be taken to keep the valuation of the poorest and lighter soils low.

"If the above rules are adhered to, the cases in which the enhancement of the assessment in individual holdings will be found to be in excess of the prescribed limit will probably be very few. In order to prevent excessive individual increases, the fixed standard of valuation must not be abandoned. It will always be optional with Government to remit wholly or in part, or for a particular period, such proportion of the increase in excess of 100 per cent. as may seem necessary; but the correct value of the land must be carefully ascertained on a uniform basis, and the proper assessment thereon duly calculated and recorded."

37. These rules have not been formally extended beyond the districts for which they were framed. The reason of this is to be found in the imperfection of the measurement and classification done in the earliest years of the survey. The revision of the earliest original settlements has, however, been effected, and the limits above set forth can now be

adopted, as in fact they have been in the revision settlements of the past two years, without injustice to the public interests. His Excellency in Council is, therefore, now able to direct that these limitations of enhancement shall be observed in the revision of all original settlements of which the term expires after the revenue year 1883-1884.

38. His Excellency in Council will state in conclusion the views of Government as to the collection of the land revenue. It is often asserted that the rigid exaction of the land revenue in good and bad seasons is incompatible with the sustained solvency of the rayat. It is, however, to be noted in the first place that in a revenue settlement everything affecting the security or in security of agriculture in the tract under settlement is weighed and the maximum rate of each group of villages is graduated accordingly. No consideration is more potent in the adjustment of rates than the security or insecurity of the crops in the area under settlement. A taluka is often divided into five or six groups for no other reason than the comparative certainty of the rainfall. Thus allowance is made in the assessments for the fluctuations in agricultural returns caused by variations of season by what may be called a standing remission co-extensive with the settlement in favour of the less fortunate tracts. The principle certainly is that the assessments thus carefully adjusted to the average production should be punctually paid. But even in ordinary years the practice stated in the passage* from the Report of the Famine Commission quoted in the margin has been pointed out to the Collector as a guide. And when any agricultural disaster which can be called abnormal occurs, the principle of rigid exaction is unhesitatingly set aside. In recent years, land revenue instalments have in fact been frequently suspended. If it is found possible to collect these instalments in subsequent prosperous years, the advantage attributed to rents in kind is secured, *viz.*, that the rayat pays when he has wherewith to pay and is excused payment when he has not. If not, the arrears are remitted. If the disaster is serious, remission is sanctioned rather than suspension, and always a careful enquiry into individual cases is held before it is decided whether the suspended land revenue should be collected or remitted. The reason why the subject of remissions is not treated in the Land Revenue Code is that each case is considered by Government, to whom every agricultural disaster is promptly and fully reported. But in order that the policy of Government may be understood and that the action of the Collectors on such occasions may

*With regard to landowners or rayats who fall into difficulties in ordinary years, we do not consider that any radical change in the prevailing method of revenue *collection* is needed, though a reasonable indulgence may well be shewn in a few exceptional cases of individual misfortune. The Collector should understand that Government looks to him to manage its estate to the best advantage and that notwithstanding the general principle of the settlement he is entrusted with discretion to postpone the demand in the case of persons whom it is in the public interest to maintain on the land The interest of the landowner and the interest of the Government as the chief landlord are identical, and it should be understood that the Collector is not to sacrifice a good tenant to the principle of the settlement by rigidly selling him up and ejecting him because his revenue is in arrear.

be uniform, the following rules have been added to the Provincial Famine Code :—

" *A.—Suspensions and Remissions of Land Revenue.*

" 138 When a Collector has clearly ascertained that an abnormal failure of the harvest, causing total or almost total destruction of the crops over a considerable area, is certain, he is authorized to suspend the collection of the next ensuing instalment of land revenue in such area and any subsequent instalment or instalments falling due while the failure continues. The Collector shall forthwith report his proceedings, stating fully the reasons for his order and the extent of its application, with all other particulars, to the Commissioner for the information of Government.

" 139. The Collector will cause the occupants whose land revenue is suspended distinctly to understand that such suspension is provisional only, and that it will be decided after subsequent investigation whether the land revenue suspended will be ultimately remitted or collected.

" 140 As soon as possible after the failure of the harvest has ceased, the Collector will conduct a careful investigation into the loss of crops sustained by each occupant whose land revenue payment has been suspended, and its effect on his ability to pay the suspended instalments, and will submit to Government through the Commissioner his recommendations for the remission or collection, or partial remission and collection, of the suspended land revenue.

" 141 In framing his recommendations the Collector will consider whether the loss of harvest in each case has been total or partial, whether the occupant has been left without means or possesses a reserve of means or capital, whether he has lost or preserved his plough-cattle and agricultural stock. If the occupant has sub-tenants the Collector should ascertain whether he has recovered his rents from them or remitted them. On these and similar considerations the Collector will decide whether total, partial or no remission should be recommended.

" 142. In no case should the Collector apply such pressure to obtain payment as will cause an occupant to sell his plough-cattle or agricultural implements, or prevent or retard the resumption of agriculture. The recovery of arrears, if any, should be from a surplus of means after sufficient is allowed for the subsistence of the occupant and his family and the restoration of his position as a revenue payer, and occupants should not be driven to borrow from *savkars* in order to pay arrears.

" 143. For the payment of arrears of suspended revenue, if ordered, the Collector may fix such instalments, extending over such period, as the circumstances of the occupant may require."

39. The principles stated in this resolution as to the non-assessment of the value of improvements made by the occupant are as applicable to Sind as to the districts of the Presidency proper. But the course of survey and settlement in Sind has not been parallel with that in the latter districts. The date from which the survey record may be accepted as

complete must, therefore, be placed much later in Sind, or about 1875–1876. Again, while the soil assessment can be fixed so as not to require further revision, the water assessment cannot so be fixed The productive value of land in Sind depends far more on the water-supply than on the quality of the soil, and the water-supply is a factor in the calculation of assessment to which permanency does not yet attach. The water is not an inherent advantage, but one obtained with some uncertainty and variation from without A large proportion of the assessment is, therefore, a charge for water made available by external agencies other than the capital or labour of the occupant. A charge for its use might be made at any time, and if the charge is deferred until a revision takes place, the revised rates, which include both soil and water assessment, cannot be restricted by a maximum limit of enhancement applicable to quite different conditions. The comparatively large enhancement in some of the recent revision settlements in Sind is chiefly due to an added charge for the use of increased water-supply of which advantage was taken by occupants during the currency of the previous settlement, but for which nothing extra was paid until the revision took place.

40. His Excellency the Governor in Council has now reviewed the whole of the subject proposed in the first paragraph of this resolution. The land revenue assessments are based on most careful inductions of all relevant facts. There certainly are difficulties in reaching assurance as to the exact incidence of assessment rates The attachment of the people to their land qualifies the precision or the test supplied elsewhere by land passing out of cultivation when the rent is high in proportion to that on other land of similar quality. Data of the rents at which land is leased by private persons are not largely available. But as far as they are known they go to prove that the assessments are moderate. The incidence of the land revenue on the gross produce in Bombay was estimated in the Report of the Famine Commission at 7·6 per cent. The crop experiments made in recent years shew that it is not in excess of that proportion. The object of this resolution is to make publicly known the grounds of assurance that the land revenue will not be capriciously or excessively enhanced and that no part of the profits of occupants' improvements will be taken from them in that name His Excellency in Council believes that this assurance is as complete and that the system as now explained approaches as nearly to a permanent settlement of the State rights as is possible with justice to public interests in a country of which the resources are still far from fully developed

J NUGENT,

Secretary to Government.

Communicated to the Commissioners of Divisions, all Collectors, etc., etc., with copies of Government Resolution :—

A.—No. 1028, dated 25th February 1871.
B.—No. 6682, dated 10th November 1881.*
C.—No 8989, dated 7th December 1883.

* Not printed.

ACCOMPANIMENT A.

Revenue Survey and Assessment.

No. 1028.

REVENUE DEPARTMENT.

Bombay Castle, 25th February 1874.

Read again the following papers:—

Letter from the Survey and Settlement Commissioner, S. D., No. 1900, dated 17th November 1873—Soliciting, with reference to the revision of settlements in the Southern Maratha Country now about to be commenced, a reconsideration of the orders contained in Government Resolution, No. 4050, dated 22nd August 1871, regarding the assessment of well lands.

Memorandum from the Survey and Settlement Commissioner, N. D., No. 2247, dated 5th December 1873—Submitting remarks on the above.

Memorandum from the Revenue Commissioner, S. D., No. 160, dated 15th January 1874—Forwarding the above, and stating that he hopes to submit his views in a few days.

Memorandum by the Survey and Settlement Commissioner, S. D., No. 121, dated 26th January 1874—Stating, in reply to a reference made, that no inconvenience will result from the postponement of a decision on the above question, which has no practical bearing on the revision settlements of this year.

Resolution of Government on the above, No. 520, dated 30th January 1874.

Read also a memorandum from the Revenue Commissioner, S. D., No. 304, dated 27th January 1874—Submitting, as promised in his memorandum of the 15th idem, No. 160, his views on the letter from the Survey and Settlement Commissioner, S. D., No. 1900, dated 17th November 1873.

RESOLUTION.—Colonel Anderson requests that the orders of Government in respect to the revision of the assessment on lands irrigated from wells may be reconsidered. He objects to them as involving a needless sacrifice of public revenue.

2. Those orders are—

(1) That in the case of old wells constructed before the first settlement in dry and arid districts, all special water assessment should be abandoned, and the maximum jirayat rate alone levied.

(2) That in the case of new wells constructed subsequent to the first settlement the ordinary dry-crop rate should be imposed without any addition whatever on account of the new wells.

3. The question now has been very fully discussed. His Excellency the Governor in Council has no hesitation in re-affirming the second order which has been approved of by the Secretary of State, which has

already been productive of good results in encouraging the construction of new wells and which is based on the broad and liberal principle laid down in section XXX of the Survey Act, namely, that improvements made during the currency of a settlement are not to be taxed.

4. The opinions that have been elicited during the course of the present correspondence convince Government as to the policy and expediency of the first rule. It was intended in the first instance to be applicable to the drier talukas of the Deccan Collectorates, where the rainfall is, as a rule, light and uncertain. His Excellency the Governor in Council is now pleased to decide that it should be generally adopted in the Deccan and Southern Maratha Country, but that the Survey Commissioners should at their discretion be empowered, in the case of districts where well irrigation has been carried on on an extensive scale, to impose an assessment which should in no case exceed a well assessment previously levied

5. Budkis of permanent construction are to be treated as wells. There is no objection to the plan which Colonel Anderson states he has adopted of classing at a higher rate land within a certain distance from a stream from which water can be obtained by means of a budki. The same principle may be adopted in the case of land which is found to derive benefit from its proximity to a tank. This should form part of the regular process of classification, in order that it may be tested by the Classing Assistants in the same manner as other classification returns

E. JAMES,

for Chief Secretary to Government.

ACCOMPANIMENT C

No. 8989.

REVENUE DEPARTMENT.

Bombay Castle, 7th December 1883.

Read again the following correspondence :—

Letter from the Government of India, Revenue and Agricultural Department, No. 539-R., dated 15th May 1883, and enclosures.

The Government of India have recently been in communication with the Secretary of State regarding the principles on which future revisions of land revenue assessments should be made in Northern India, and the Secretary of State has suggested, in giving his assent to the general principles which the Viceroy in Council advocated, that the Government of

Provinces in which these principles are formulated. There is much in that letter which is wholly inapplicable to the state of things in Bombay, but on the other hand one at least of the leading principles therein inculcated has for years past been an accepted feature of the Bombay system; in other respects the Government of India thinks that the explanation of the principles which underlie the relations of the revenue payers to the State will be found not to be fundamentally at variance with the Bombay system. I am to enquire if, in the opinion of His Excellency the Governor in Council, the more extended application of them to the Bombay revenue system is considered practicable or expedient. The objects which the Government of India has in view are to avoid as far as possible the harassment and expense inseparable from re-survey and re-classification of soil, at every recurring re-settlement, to give the revenue payer a means of estimating beforehand with tolerable accuracy what his enhanced revenue should be, and with this object limiting enhancements to the three grounds of rise in prices, additional cultivation, and improvements made at Government expense. It is not supposed that the detailed method of applying these principles, which is suggested in paragraphs 16 to 30 of the letter to the North-Western Provinces Government, will be found applicable to Bombay, but a consideration of these paragraphs may suggest other methods more applicable to that province, and will at all events render portions of this letter more easily intelligible.

2. There has been much in the correspondence which of late years has passed between the Government of Bombay, Her Majesty's Secretary of State and the Government of India, which has led the Government of India to think that the Bombay Government will, on some of the questions which come under discussion in the letter to the North-Western Provinces, hold similar views to those of the Government of India. His Excellency in Council is constrained to admit that proposals made by Sir Phillip Wodehouse, of which the main object was to remove the annoyance of the re-measurement and re-classification of land, received some check in consequence of the objections raised by the Government of India itself to an important part of his recommendations But since the date of the correspondence on the subject, which ended with letter No. 7046, dated 15th December 1875, from the Bombay Government, so much light has been thrown upon the circumstances of the Bombay assessments by the full and clear reports of Colonel Anderson, Mr. Stewart, and other officers engaged in the settlement of the land revenue in the Presidency, that the Government of India is able to revert to the proposals of 1874 with some confidence that the principles therein contained will be found in many respects to agree with those now put forward by the Government of India. On the main point indeed, as has been already implied, the Bombay scheme of 1874 and that included in the present letter to the North-Western Provinces agree entirely, *viz.*, in the desire to do away with the troubles, difficulties and expense of re-measuring and re-classifying land.

Sir P. Wodehouse appears to have desired to concede to the proprietors of land the whole of the assets realized from that part of the cultivated

area of each survey number which at the time of assessment had not been recorded as under cultivation This at least seems to have been the proposal for districts assessed after 1848 The Government of India would now ask whether the Government of Bombay would be inclined to renew this suggestion with such modifications as may now seem desirable.

3. A good deal of correspondence has arisen in regard to the burthen of enhancement imposed at the time of re-settlement in some of the Bombay districts. The Government of India does not, in referring to it, now wish to enter into any discussion on this part of the subject, but desires merely to ask whether in the case of those districts in which it is impossible to resign the enhanced revenue due to the extensive cultivation of land (known it is believed as *pot-kharab*) which was not included in settlements before 1848 in the assessable area, it would not in the opinion of the Bombay Government be desirable to make the enhancement progressive in all cases in which the increment of revenue bears a high proportion to the former assessment.

4. The most important question connected with the proposals of the enclosed letter is that of eliminating the process of re-valuing the land. The Government of India would ask, first, whether it may be understood that in those districts, if any in which the increment due to the cultivation of *pot-kharab* can be resigned, no new valuation of the soil will be necessary, and that the existing revenues can be accepted as the initial revenues; and secondly, whether any date can be selected in regard to which it must be accepted that all assessments made previous to it were of such a nature as to require a new valuation in their case but not in the case of districts assessed after that date? The anxiety of the Government of India to avoid the re-classification of soils under all circumstances where it is possible to do so will not escape the attention of the Government of Bombay, and its views on this question will, it is hoped, receive earnest consideration at its hands. The Viceroy in Council trusts, indeed, that some definite programme may be found possible under which the revenues of a certain number of districts may at once be accepted as initial revenues which can in future only be enhanced on certain well-defined grounds such as those given in paragraph 13 of the enclosed letter.

5. Finally, the Government of India wishes to make some allusion to the position of those tracts of which the produce is so precarious as to prevent the offer of a fixed and uniform assessment from possessing the advantages which in normal tracts it possesses In connection with this matter it invites attention to the Resolution No. 58-R.,* dated 12th October 1882, on suspensions and remissions in Northern India. It might perhaps be found desirable to adopt a system of collecting revenue in such tracts which may include an acknowledged and definite system of suspensions and remissions. The great object in laying down rules, however elastic they may be, for suspensions and remissions, is to establish the principle as a definite and integral portion of the Revenue

*Copy follows.

Provinces in which these principles are formulated. There is much in that letter which is wholly inapplicable to the state of things in Bombay, but on the other hand one at least of the leading principles therein inculcated has for years past been an accepted feature of the Bombay system; in other respects the Government of India thinks that the explanation of the principles which underlie the relations of the revenue payers to the State will be found not to be fundamentally at variance with the Bombay system. I am to enquire if, in the opinion of His Excellency the Governor in Council, the more extended application of them to the Bombay revenue system is considered practicable or expedient. The objects which the Government of India has in view are to avoid as far as possible the harassment and expense inseparable from re-survey and re-classification of soil, at every recurring re-settlement, to give the revenue payer a means of estimating beforehand with tolerable accuracy what his enhanced revenue should be, and with this object limiting enhancements to the three grounds of rise in prices, additional cultivation, and improvements made at Government expense. It is not supposed that the detailed method of applying these principles, which is suggested in paragraphs 16 to 30 of the letter to the North-Western Provinces Government, will be

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Sir P. Wodehouse appears to have desired to concede to the proprietors of land the whole of the assets realized from that part of the cultivated

obtained from its cultivation. This survey record does not in itself

thus distinct from the assessment and variation of revenue rates, and is attained when the survey record is accurate and complete enough to be finally accepted as guaranteeing the relative fairness of any rates which it is decided to impose. At the same time, as the relative value of every field has to be distinctly estimated, it is clear that the operation must be as scientific as possible and the necessity of revising the rough and uneven work of the early years of the survey is explained.

6. Mr. Stewart has given (paragraphs 16 to 21) an estimate of the field operations still necessary before the survey record can be accepted as complete according to these views. When these operations are finished the record will remain as an authoritative and sufficient standard of relative values by which assessment may be adjusted to each field through calculations made in the Collector's office. The work remaining to be done is not much; but if the correction of the survey record in each taluka or group is, as at present, deferred until the current settlement expires, it will be protracted into the next century, while the existing highly skilled establishments will be dissipated for want of full-time employment. Mr. Stewart, therefore, proposes that the completion of the survey record should be carried out at once with the full strength of present establishments, and expects that in this case all field operations in the Presidency may be completed within a period of eight years. Current settlements will not, of course, be altered until their term expires, and it will be necessary to explain carefully to the landholders under unexpired guarantees · [illegible] I am to say that His Excellency i[illegible] oposal and believes that it will c[illegible] Viceroy in Council as in complet[illegible] ved by the Government of India.

7. I am next to advert to the question asked by the Government of India, whether the Government of Bomb[illegible] such modifications as may seem desirable [illegible] Government of Sir P. Wodehouse in [illegible] arable, was included in a survey number as unarable and unassessed at the original settlement, should at the revision settlement be again left unassessed for the benefit of the occupant I am to say that His Excellency in Council considers that this concession, if granted absolutely as proposed in 1874, would have resulted in unnecessary loss of revenue, regard being had to the quality of the survey record as then unrevised in some of the districts first surveyed. But the position is now different, and this Government is prepared to sanction the concession as a general principle in talukas and groups the soils of which were classified subsequent to the year A.D. 1854. This subject is discussed in paragraphs 13-15 of Mr. Stewart's letter. As Mr. Stewart observes, this decision of Government on the future treatment of *pot-kharab* removes the

Code, which will not be dependent on the varying views of individual revenue officers or even of successive Governments. It is understood that in practice suspensions and remissions are now freely resorted to, especially since 1877, but it seems desirable that an element, on which in certain tracts the security of the Bombay revenue system depends so largely, should, so far as the conditions permit, be reduced to a system, and take an acknowledged and prominent place in the rules by which the revenue officers of the province are guided.

6. The Government of India, without asking at the present [illegible]

to their general applicability in whole or in part to the revenue system of the Presidency.

Letter from the Government of Bombay, Revenue Department, to the Government of India, No. 6340, dated 27th August 1883, and accompaniment.

I am instructed to reply to your letter No. 539-R. of the 15th May.

2. I am to say that His Excellency the Governor in Council is in entire accord with the Government of India on the general principles enunciated in your letter and its enclosures; he considers that those principles are generally applicable to the revenue system in this Presidency, and he has directed me in this letter to explain how and with what modifications of existing arrangements they may be adopted.

3. Before addressing the Government of India on this important subject, His Excellency in Council desired to avail himself of the knowledge and experience of the Commissioner of Survey. Mr. Stewart has furnished an able review of the present position of settlement operations [illegible] views [illegible] I am [illegible] almost every point in the opinions and proposals which it contains.

4. The object of the Government of India is to reduce and abridge as far as is practicable the annoyance, expense and uncertainty inseparable from the re-survey and re-classification of soil, and to enable the revenue payer to forecast with tolerable accuracy what a future enhancement of revenue will be by clearly defining and limiting the grounds on which such enhancement will be based.

5. There is, as you remark in your letter, a great difference in the method of revenue settlement pursued in the North-Western Provinces and this Presidency respectively. In the former a revenue settlement is made on mixed considerations of what the landholder's assets are and what they might be, and the object is to assess for a fixed term a lump revenue payment on the estate or village. In Bombay the work of the Survey Department proper is to prepare a complete record of the correct areas of fields, and the relative value of each as measured by the return

obtained from its cultivation. This survey record does not in itself settle the Government land revenue due on the field, but supplies a scale for adjusting it equitably according to the quality and advantages of the land. The object of our measurement and classification of soils is thus distinct from the assessment and variation of revenue rates, and is attained when the survey record is accurate and complete enough to be finally accepted as guaranteeing the relative fairness of any rates which it is decided to impose. At the same time, as the relative value of every field has to be distinctly estimated, it is clear that the operation must be as scientific as possible and the necessity of revising the rough and uneven work of the early years of the survey is explained.

6. Mr. Stewart has given (paragraphs 16 to 21) an estimate of the field operations still necessary before the survey record can be accepted as complete according to these views. When these operations are finished the record will remain as an authoritative and sufficient standard of relative values by which assessment may be adjusted to each field through calculations made in the Collector's office. The work remaining to be done is not much; but if the correction of the survey record in each taluka or group is, as at present, deferred until the current settlement expires, it will be protracted into the next century, while the existing highly skilled establishments will be dissipated for want of full-time employment. Mr Stewart, therefore, proposes that the completion of the

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Current settlements will not, of course, be altered until their term expires, and it will be necessary to explain carefully to the landholders under unexpired guarantees what the object of the operations is. I am to say that His Excellency in Council entirely concurs in this proposal and believes that it will commend itself to His Excellency the Viceroy in Council as in complete concordance with the policy approved by the Government of India.

7. I am next to advert to the question asked by the Government of

arable, was included in a survey number as unarable and unassessed at the original settlement, should at the revision settlement be again left unassessed for the benefit of the occupant. I am to say that His Excellency in Council considers that this concession, if granted absolutely as proposed in 1874, would have resulted in unnecessary loss of revenue, regard being had to the quality of the survey record as then unrevised in some of the districts first surveyed. But the position is now different, and

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13–15 of Mr. Stewart's letter. As Mr. Stewart observes, this decision of Government on the future treatment of *pot-kharab* removes the

necessity for the progressive increments of revenue suggested in the 3rd paragraph of your letter.

8. Having now considered the questions connected with the formation of the survey record I am next to proceed to those which relate to revision and enhancement of land revenue assessments

9. I am to observe that the considerations on which a scheme has been framed for fixing "initial revenues" in the North-Western Provinces are not existent in this Presidency. The survey record will, when once complete, be always available for the purposes of periodic revisions, it will be decided on the statistical information collected for the purpose what the rate of enhancement should be, and when "revised maximum rates" have thus been determined, the revised assessment of each field will be worked out from the survey record. It is, therefore, only necessary to advert to the grounds on which enhancements should be based.

10. The grounds of enhancement according to the existing law in this Presidency are set forth in section 106 of the Land Revenue Code* which enacts as follows.—

* Bombay Act V of 1879.

"A revised assessment shall be fixed, not with reference to improvements made from private capital and resources of the currency of any settlement, but with reference to general considerations of the value of land, whether as to soil or situation, prices of produce or facilities of communication."

And the proviso is added (section 107)—

'Nothing in the last preceding section shall be held to prevent a revised assessment being fixed—

"(a) with reference to any improvement effected at the cost of Government; or

"(b) with reference to the value of any natural advantages when the improvement effected from private capital and resources consists only in having created the means of utilizing such advantage; or

"(c) with reference to any improvement which is the result only of the ordinary operations of husbandry."

11. With regard to water advantages (section 55) the Governor in Council may authorize the Collector or the officer in charge of a survey, or such other officer as he deems fit, to fix such rates as he may from time to time deem fit to sanction, for the use by landholders and other persons of water the right to which vests in Government, and (section 2, Bombay Act VII of 1879) in respect of which no rate is leviable under the Bombay Irrigation Act of 1879. The Irrigation Act empowers the Governor in Council (section 44) to levy rates for canal water. These provisions relate to the use of river or canal water. The officer in charge of a survey when assessing land is also em[illegible] the case of lands used [illegible]essment either directly [illegible]e means of irrigation if these are not already rated under section 44 of the Irrigation Act.

12. With reference to the power taken to assess wells I am to say that it is now a rule of general application that in the case of old wells constructed before the original settlement no special water assessment is imposed, but the lands under them are assessed within the highest dry-crop rate for the village. And in the case of new wells constructed since the original settlement and during the first settlement period, no addition is made to the assessment on account of them, and the profits earned by them are left entirely to the occupant. And some uneasiness having been expressed by occupants as to the bearing of section 107 (*b*) on the construction of wells, it was declared in Government Resolution No. 6682, dated 10th November 1881, that wells are not considered by Government to be improvements such as under that clause will be taxed in making revised assessments.

13. It is evident from what has now been said that, when the survey record is completed, a general enhancement of revenue on revision can be based on hardly anything else than a general increase in the profits of agriculture resulting from a general rise in prices, or a local increase resulting from a better market secured by new roads or railways constructed at the public cost.

14. I am to say that His Excellency in Council entirely concurs that a rise in prices of the common produce of India should be used with great caution as a measure of the enhancement of land revenue. Fluctuations in prices are periodically caused by the alternation of short and abundant harvests and by the inflation and contraction of trade in some exportable product, and these cannot be foreseen. It may be hoped that when the country is better protected from famine, railways and roads are more generally distributed, and the export trade has obtained a stronger hold on foreign markets, the oscillations in agricultural profits will be less marked. In the meantime it is not easy to formulate a rule of proportions between revenue enhancements and prices.

15. Mr. Stewart has suggested (paragraph 27) that it may not be expedient in the interest of the existing peasant occupants of Bombay to reduce to very precise and narrow limits the declared grounds on which alone the Government will increase its land revenue demand. The Government of India will probably not concur that uncertainty should be retained in the definition of these grounds after it has ceased to be necessary, because it acts as a deterrent on the money-lending class, who might be inspired by certainty of assessment to supplant the present holders of the land. Anything which may operate to hold back capital from agriculture is an evil. But while the reasons for enhancement tend to merge into the one general ground of a substantial increase in agricultural profits, I am to say that His Excellency in Council would not recommend until the survey record is complete any change in the principles of revision laid down in the Land Revenue Code.

16. I am finally to refer to your remarks on the subject of suspensions and remissions. Mr. Stewart (paragraphs 28–30) has pointed out and

illustrated the fact that it is an important part of the survey valuation of land to make full allowance in the assessment rates for the uncertainty of the harvest in tracts where the rainfall is irregular. The system provides relief for ordinary or partial failures of harvest by what is in fact a standing remission. This relief is embodied in the survey record and operates mechanically and independently of "the varying views of individual revenue officers or even of successive Governments." Remissions on a large scale are, therefore, properly limited to exceptional calamities, such as a visitation of locusts, famine, or agricultural depression caused by bad seasons following famine. The reason why rules have not been formulated for such remissions in this Presidency is that, the occasions being exceptional, the facts are always reported at once for the special orders of the Government, and I am to say that His Excellency in Council believes that it may be claimed for the Bombay revenue system that no failure is probable in the conveyance of timely information to the Government. In these circumstances formulas are not needed for the guidance of Government. But His Excellency in Council is willing to believe that it may be an advantage to the district officer to be in possession of a clear and simple statement of the policy of the Government on the whole subject of suspensions and remissions In regard to ordinary years there is some reason to think that the Collectors in following the processes of the Land Revenue Code for the recovery of revenue may lose sight of the sound views stated in the passage of the report of the Famine Commission quoted in the margin. And in seasons of exceptional distress some rules of action may be a useful guide to uniformity in the Collectors' recommendations of suspension and remission. I am to say that His Excellency in Council, therefore, proposes to refer this subject for the consideration of the Committee which has lately been appointed for the preparation of a Provincial Famine Code, and to decide on their report what instructions it is advisable to issue.

"With regard to landowners or rayats who fall into difficulties in ordinary years, we do not consider that any radical change in the prevailing method of revenue collection is needed, though a reasonable indulgence may well be shewn in a few exceptional cases of individual misfortune The Collector should understand that Government looks to him to manage its estate to the best advantage, and that notwithstanding the general principle of the settlement he is entrusted with discretion to postpone the demand in the case of persons whom it is to the public interest to maintain on the land. The interest of the landowner and the interest of the Government, as the chief landlord, are identical, and it should be understood that the Collector is not to sacrifice a good tenant to the principle of the settlement by rigidly selling him up and ejecting him, because his revenue is in arrear."

17. I am to say in conclusion that as Mr. Ozanne has now taken up the appointment of Provincial Director of Agriculture, steps will at once be taken to organize under his direction, in co-operation with the Survey Commissioner,* "a competent staff, whose duties will be to keep the village maps up to date, to correct from time to time the field registers, and to record from year to year the statistical information which has to be considered at the time of revising the rates."

*Mr. Stewart's para. 17.

18. His Excellency in Council desires me to say that he will be glad to receive an expression of the opinion of His Excellency the Viceroy in Council on the views stated in this letter before action is taken to carry them into effect.

Letter from the Survey and Settlement Commissioner, No. 1360, *dated 27th June* 1883, *referred to in the foregoing letter from the Government of Bombay.*

I have the honour to acknowledge the receipt of your memorandum No. 4414, dated 11th instant, forwarding for my opinion a letter from the Secretary to the Government of India, Revenue and Agricultural Department, dated 15th May 1883, in which the Government of Bombay is asked to consider and report as to the extent to which certain principles laid down for the guidance of the Government of the North-West Provinces in future revisions of assessment can be made applicable to this Presidency.

2. The two main principles which the Government of India's letter is intended to inculcate may be briefly stated as follows.—

1*st*.—That to avoid the trouble, annoyance and expense under the present system of revision of assessments, the process of re-valuation of land should be eliminated in future from the scheme of land assessment. Or in other words, that the agricultural value of the land having been once ascertained with tolerable accuracy, that value should be taken as the basis for future adjustment

2*nd*.—That the future assessments of land revenue should be arranged under such rules and in such a manner as will enable the proprietors of land to forecast with tolerable precision and without official aid the enhancement of revenue to which they will in future be subject so that an element of certainty of assessment may be to some extent introduced into the settlement.

3. With regard to these two principles I think I may safely say that the first is one which is thoroughly accepted in the Bombay system of settlement and has been fully recognized and expressed in the orders of Government for several years past and that although the second principle has not yet been fully developed as part of the settlement system in this Presidency, a considerable step towards its realization has been made by the legal restrictions on enhancement of assessment in revision provided in the Land Revenue Code and by the limits which have been placed on revenue enhancements by the orders of Government in 1874. Although it may be open to doubt whether under the rayatwari system of Bombay a certainty of the future range of assessment will be altogether favourable to the interests of the rayats themselves, as distinguished from the capitalists who are rapidly acquiring their lands, there is nothing in the Bombay system itself which will stand in the way of the carrying out of the wishes of the Government of India, if it be decided that the time is ripe for the introduction of this principle in its entirety.

4. The subject of the re-measurement of land in this Presidency is so closely connected with that of re-classification as an operation of revision that the absence of reference to it in the letter to the Government of the North-West Provinces may excite some surprise. The reason, however, is that in the North-West Provinces the whole area surveyed for the original settlements between 1833 and 1844 has been already brought under one revision of rates and the original measurements and maps have been altered and corrected up to a comparatively late date; whereas in this Presidency we have been and are still engaged in reviewing, and in many instances re-doing, the old work which cannot be fully accepted as accurate. And not only have the whole of the original measurements in the North-West Provinces been once revised in the ordinary course, but the later surveys have been carried out by the costly Imperial cadastral agency, which must supply all the data for a settlement on the broad basis of that of the North-West Provinces in a form which could scarcely be improved upon. It must be clearly kept in view, therefore, that the Government of India, in laying down principles for the observance of the Government of the North-West Provinces, is alluding to an approaching revision of an already revised valuation, while the operations in progress in this Presidency are directed to the carrying out of a first revision only.

5. Between the valuation and appraisement of land which forms an integral part of the North-West system in its latest development and the minute classification of soils in the Bombay Presidency, there is a very great difference both in the method of procedure and in the objects aimed at In the North-West the valuation of the soils is performed by the Settlement Officer on a simple inspection of the fields of each village, his object being to group the lands into homogeneous areas according to their distance from the village and the natural and artificial qualities of their soil To the areas so classified average rent rates calculated on very minute local inquiries and local examination of accounts and records are applied, and on a percentage of the total rental so arrived at the Government revenue of the estate is fixed The classes of soils employed for this operation are so few and simple that it is impossible to think that this part of land valuation is that which causes trouble and annoyance to the people. It is much more likely that the elaborate local inquiries and researches of the Settlement Officer to ascertain actual rent rates, or to estimate average rent rates when actual rents cannot be ascertained, are the real cause of harassment and vexation. Under the Bombay system no inquiries of the latter kind are required to be made in the village, and if re-valuation of soils is alleged to cause harassment and annoyance to the people, it must be shewn to be caused by the single technical operation of re-classification in the field, which is the only one of which the individual rayat has any cognizance. I am inclined to believe that much of the odium which has attached itself to revision operations in Upper India on account of the inquisitorial nature of the local inquiries into rents and the scrutiny of accounts and records involved in the appraisement of the land has been saddled on the Bombay system from an idea that the process of the valuation of the soil must be somewhat

similar. In paragraphs 22 to 30 of my report on future operations in Khandesh, No. 1714, dated 3rd September 1882, I have taken occasion to combat the main charges levelled against us under this head. But my object in bringing to notice the vast difference in the two processes is not to continue a discussion on this question nor to gainsay the fact that the re-classification of lands is a thing to be avoided as far as possible, but to shew that although the Government of the North-West Provinces, in settling the revenue with holders of villages and large estates, may be able to accept a land valuation of "tolerable accuracy" as the basis of their assessments, the Government of Bombay in settling for the payment of revenue with individual rayats, many of whom are small holders, cannot afford to stay its hand in the matter of re-classification of the soils until it is assured that the standard of classification is thoroughly fair and equal and that each holding or recognized parcel of a holding has been subjected to an intelligent estimate of its relative productiveness.

6. The classification of soils in the Bombay Presidency differs in the first instance from that of the North-West Provinces in being an operation wholly apart from the duties of the Settlement Officer. It is a duty preceding settlement performed by a special agency and is as detailed and technical as the soil classification of the North-West is broad and general in its aims. Each survey field or subordinate survey field (*pôt* number) is classed separately on its own merits by digging to ascertain depth and careful analysis of soil, and the average classification arrived at is expressed in fractions of a rupee according to a prescribed valuation scale. Beyond recording the distance of the field from the village, whicl

manure and

tree-growth,

mention that it has been the practice hitherto for the classer during his stay in the village to record facts regarding population and live-stock, but I have recommended that even this duty should be discontinued.

7. Although the classification valuation of the field itself is no guide in deciding the pitch of the rates of assessment, it is, however, the great factor by which the incidence of the assessment on each field is graduated. When the maximum rate, i.e., the rent charge considered applicable to the best, or what is technically termed 16-anna soil, is decided for a village or group of villages, the assessment per acre of the lower classed fields is decided at once by the proportion their valuation in annas bears to 16 annas. The necessity of a careful and accurate field classification cannot, therefore, be too highly estimated. If the classification is relatively fair and equal, periodical enhancements of the maximum rates may be made upon its basis only without any hesitation; if on the other hand it is unequal and ill-balanced every successive application of an enhancement will add to excessive rating on the one hand or undue leniency on the other. A good classification in itself will not prevent the imposition of too high or too low an assessment, but it is a complete safeguard against relative inequality in assessment. Moreover, if over-assessment is caused by a too high pitch of the maximum

mistake can be remedied with no appreciable expense by a lowering of the rate and the application of the classification thereto; but when relative over-assessment is caused by an unequal classification, there is no remedy for it but an expensive course of field operations.

8 The above remarks will, I think, tend to shew what a much greater stake is involved in the field-to-field classification of Bombay than in that portion of the land valuation in the North-West Provinces which is connected with the distinguishing of soils. In fixing the lump revenue to be paid by a village community or a zamindar, some little roughness in the classification of the lands under the main heads of soil will not ordinarily be perceptible; and if the valuation of one portion of the estate is somewhat low, a high valuation of another portion may counterbalance the effect. But this is not possible in the case of the small parcels of land on which the settlement is made in Bombay, where no "tolerably accurate" classification will suffice. It is essential to obtain as accurate a classification once for all as is possible with the experienced agency and supervising staff which we now possess

9 From the earliest period of the present Bombay system of settlement, it has been a fundamental principle that no form of assessment can be suitable to the rayatwari tenure, unless founded upon a close examination of soils The conclusion arrived at by the Government of India, after reviewing the progress of settlements in the North-West Provinces in paragraph 7 of their letter, are substantially those which have been formulated and accepted by the exponents of the system in this Presidency for upwards of forty years past. It is possible that, as a corollary of the views now expressed by the Government of India, the system of land classification in this Presidency would be considered too minute an attempt to obtain an exact valuation of agricultural land; but the time has apparently passed for a modification of the system when with the exception of four talukas, the entire area of the Presidency has been so treated, and when fair progress has been made to revise the oldest portion of the work.

10 It may be asked why, if such a detailed examination of the soils has once been made, it should be necessary to do all or any of the work over again. The answer to this is that when the first districts were settled the processes and standards of classification varied in all parts of the Presidency, and the scales adopted for valuation were for many years purely tentative and experimental. Native classers had to be slowly and painfully trained to a proper discrimination of the qualities and defects of the various kinds of soil. Owing to the almost certain sacrifice of revenue which at first attended the operations of the Settlement Officers, funds were scantily allotted, and the controlling staff was insufficient for proper and systematical test. It has been found hitherto in revising the old work that when compared with the standard which has been adopted in recent settlements, and which has remained fairly constant, there is a serious under-estimation of the value of the richer soils and a corresponding over-estimation of the poor soils. In most districts hitherto entirely re-classed or partly re-classed with a view to

adjustment, it has been found that to obtain a true relative valuation the better soils have had to be put up and the poorer soils lowered about one class, or 2 annas in the rupee scale. An undue lowering by one class of the value of a 16-anna field is equivalent to a loss to the revenue of $12\frac{1}{2}$ per cent. on that field, but it is a much more serious consideration that the over-valuation of a 4-anna field to even half that extent will produce a relative over-assessment of 25 per cent.

11. Various reasons have been given for the faulty standard of the old classers. It has been suggested that as the country at the time of the early settlement was in a very impoverished condition and the best lands were lying waste on account of the weight of the previous assessment, there was a special object in keeping the valuation of such soils low, in order to tempt their re-cultivation. It is certain that the poorer soils were those which were at that time under the most constant cultivation, and their well-tilled appearance, in contrast with the good soils which were untilled and overgrown with weeds, may have had much to do with the relative error which is found in all the old classifications However this may be, the fault is gradually found to decrease as districts were reached in which [illegible] while after the great rise in value of [illegible] to have been a re-action towards a rather over-valuation of the better classes of soil. For about the last ten years only has the standard which now prevails been consistently [illegible] consensus of opinion among [illegible]

To such perfection have our experienced classers been trained in its use, that the average difference between the original classification and test is usually less than 6 pies

12 It is not only on account of the faulty standard of classification of culturable soils that the necessity has arisen for revising the old classifications, but on account of the lax system which obtained in distinguishing the culturable from the unculturable portion of a survey field I have on several former occasions explained how large parcels of really culturable land came to be thrown into survey numbers under the head of *pôt-kharab*. The practice was chiefly prevalent in those surveys conducted before 1850—the year in which the Joint Report Rules were finally published—but it was not for some time after that a close examination was made of those portions of a survey number which were out of tilth to ascertain their productive capabilities The facilities for this lax system were, however, much narrowed when the sub-division of the land into fields according to the principles of the Joint Report became general. In the large survey fields which existed before that time, often from 60 to 200 acres in area, there was a temptation to laxity which could not exist when the maximum size of a survey field came to be fixed at about 30 acres only.

13. In paragraphs 2, 3 and 4 of the Government of India's letter three important questions are asked :—

1st.—Whether the Government of Bombay is prepared to renew the suggestion made in paragraph 7 of Government Resolution No 5739, dated 29th October 1874, that the same area of land shall upon revision be deducted from each number as unassessed (*pôt-kharab*) as was allowed at the original settlement ?

2nd.—Whether, if the Government of Bombay considers it impossible to resign the enhanced revenue due to the cultivation of *pôt-kharab*, it would not appear desirable to make the enhancements progressive in all cases in which the increment of revenue bears a high proportion to the former assessment ?

3rd.—Whether any date can be selected in regard to which it may be accepted that all assessments made subsequent to it are of such a nature as to require no new valuation of soils ?

14. As regards the first question, I consider that the time has now arrived when steps may be safely and equitably taken to meet the wishes of the Government of India. Owing to the great reduction in the area of the survey field and the close and detailed inspection of each field which the Joint Report inculcated, the opportunity for the classers to slur over the examination of the fields became much diminished, while the development of the survey system and the increase of the controlling staff rendered the test and general supervision of the work year by year more efficient. There are very strong indications now that we are approaching the revision of valuations made at a time when land was only entered as *pôt-kharab* because it was really unfit for cultivation, and if we go on assessing such land much longer, we shall be running a risk of taxing improvements of a nature over and beyond the ordinary operations of husbandry. A step, therefore, which in 1874 would have resulted in giving large areas of land to persons wholly unentitled to them at a mere quit-rent seems now to be very advisable on broad principles of justice, and the cancelled orders of 1874 may, I think, with great advantage and without any appreciable sacrifice of revenue be repeated in 1884. I only refer, of course, to the general principle involved, as some modification of the rule may be necessary in practice to meet cases where land was entered as *pôt-kharab* for reasons other than because it was believed to be uncultivable, as in cases where land was formerly covered with buildings now removed, or was used as burial-ground now abandoned, or formed the bed of a *nala* which has now silted up, and so on.

15. If the above concession is made regarding *pôt-kharab*, I do not consider that it will be necessary or advisable to confuse the simple system of collections now in force by treating enhancements arising from its assessment in an exceptional way. The time when increases of revenue on account of assessment of *pôt-kharab* were really appreciable has all but past, and in the early settled districts, such as Nasik and Ahmednagar, where the system was most lax, the enhancements on this account have already been levied for several years in full. Some of the

profits which have been proved to have accrued to holders of survey fields owing to the wholesale inclusion of *pót-kharab* in their occupancies, which they could deal with as they chose for the period of settlement, are so vast that but little sympathy can be felt for them if all their cultivable land is now assessed at a fair and moderate share of its estimated rental.

16. The third question of the Government of India must be treated in connection with the subject of re-measurement, as that operation is usually followed by a certain amount of re-valuation of land. I will endeavour, as far as a very careful study of the question will permit me, to forecast the amount of re-measurement and re-classification which must be performed by this department before we have a sound basis upon which the revenues to be accepted as initial revenues can be confidently founded.

17. In discussing this question I will take it for granted that with the formation in this Presidency of an Agricultural Department early attention will be directed to the organization of a competent staff whose duties will be to keep the village maps up to date, to correct from time to time the field registers, to divide occupancies when necessary, and to record from year to year the statistical information which has to be considered at the time of revising the rates. The absence of such a staff at present is one of the weakest point of our system and the earlier it is provided and set to work in all settled districts the less will be the review of the measurements and valuations which will have to be made when the time for each revision comes round.

18. The districts of this Presidency may be considered in three distinct classes:—

1st.—Those in which a revision of rates has been carried out or is now being carried out.

2nd.—Those in which the original settlement has not yet expired.

3rd.—Those which are now being settled for the first time.

In the first category come the Deccan districts of Poona, Sholapur, Nasik and Ahmednagar, and the Southern Maratha Collectorates of Dharwar, Kaladgi and Belgaum. In the Dharwar Collectorate the revised rates have been completely introduced; in all the other Collectorates there is some little work remaining to make the revision complete, but in the course of two more seasons the whole area of these districts will have been brought under the field operations sanctioned by Government as necessary previous to revision of rates. In the second category come the five districts of Gujarat, the Konkan districts of Thana and Kolaba and the districts of Khandesh and Satara. The third class comprises the districts of Ratnagiri and Kanara, of which small portions still remain to be surveyed for the purpose of original settlement.

19. In the districts comprised in the first class the operations of re-measurement and re-classification have been in some cases total, and in other cases partial, but the work on the whole has been, and is being, so completely and carefully carried out, that there can be no objection for Government to declare that the valuation of the soil should be accepted without any future re-doing for the purpose of revenue settlement. But much, of course, depends on whether a competent staff of trained hands is at once employed to ascertain and make up to date all corrections and alterations necessary in the village maps and records

20. Regarding the districts of the second class I find myself unable to give the same general guarantee, although much trouble in field operations may be saved by the early organization of the staff alluded to above. In Khandesh the old survey and soil valuation was admittedly partial and imperfect, the early reports clearly contemplating that deficiencies should be made good at the conclusion of the first period of settlement In the earlier settled portions of Thana and Kolaba the only attempts at accuracy made were with regard to the lands cultivated with rice and *rabi* crops, the *warkas* and hill lands being very roughly measured, and their area computed in a manner which would not now be tolerated. In the five Collectorates of Gujarat the measurements were from the beginning conducted with greater care, the level character of the country being favourable to accuracy; but the early measurement and the classification of rice and garden lands in Ahmedabad and Kaira will require a partial re-doing, and some operations will be necessary throughout the province to divide clubbed occupancies, so as to comply with the law as contained in Rule 55 of the rules under section 214 of the Land Revenue Code. In the district of Satara both measurement and soil valuation have been comparatively carefully conducted throughout, and although it may be advisable to make partial test of the work to be sure that it is up to the standard of excellence now aimed at, the operations will, it is hoped, be comparatively insignificant and inexpensive Finally, I have every hope that the field operations for original settlements, which have been, or which are now being, carried out in the Ratnagiri and Kanara Collectorates, will be found to be so detailed in their nature and so generally accurate in all material points, that revised rates may be introduced upon their basis with ease and confidence.

21. I will endeavour to shew in a tabular form the forecast which I venture to make regarding the extent of field operations which will be requisite in future revision settlements :—

No	District	Under what description of settlement.	Duration of operations for existing settlement		Operations necessary at future revision of rates	Remarks
			From	To		
1	Ahmedabad	Original	1851	1862	Partial re-measurement Re-classification of rice and all irrigable lands	
2	Kaira ..	Do	1857	1868	Do	Re-measurement chiefly necessary to break up clubbed occupancies
3	Surat	Do	1859	1873	Do	
4	Broach .	Do	1863	1877	Do	
5	Panch Mahals	Do.	1865	1882	Do. in first settled talukas only	
6	Khandesh	Do. .	1854	1870	Partial re-measurement and re-classification throughout	Original survey only partial Revision operations commenced in one taluka as sanctioned by Government Resolution No 6952, dated 23rd September 1882
7	Nasik	Partly revised	1827	Unfinished	None	One taluka only remains unrevised operations in progress
8	Ahmednagar	Do	1876	Do	None	Field operations towards revision completed in three-fourths of the district
9	Poona	Do .	1867	Do	None	Revision field operations in two remaining talukas sanctioned and in progress
10	Sholapur .	Do .	1872	Do	None	Two talukas remaining of which original rates not yet expired
11	Satara .	Original	1855	1864	Partial re-measurement and re-classification throughout	
12	Belgaum ..	Partly revised	1879	Unfinished	None	Field operations towards revision completed in three-fourths of the district.

No.	District	Under what description of settlement	Duration of operations for existing settlement		Operations necessary at future revision of rates	Remarks
			From	To		
13	Dharwar	Revised	1874	1880	None	
14	Kaladgi	Partly revised	1874	Unfinished.	None	Revised field operations completed
15	Thana	Original	1854	1867	Partial re-measurement and re-classification	Revision operations just commenced in one taluka as sanctioned by Government Resolution No 8263, dated 25th November 1882
16	Kolaba	Do	1854	1867	Do	
17	Ratnagiri	Partly settled originally	1866	Unfinished	None	Field operations nearly complete
18	Kanara	Do	1863	Do	None	Field operations complete except in one taluka.

22 It will be seen from the above table that in all districts in which revision operations will take place after this date it is expected that there will be no general re-measurement and re classification at all The operations will be confined to partial re-measurement and re-classification, no step towards which is under existing orders taken without the express concurrence of Government After the partial measures necessary to place the work on a satisfactory footing, re-measurement and re-classification will cease altogether to be operations attendant on a revision of rates

23. In paragraphs 16 to 19 of the letter to the Government of the North-West Provinces I observe that, independently of the fact whether the period of existing settlements has expired or not, it is urged upon that Government that in all adequately assessed districts the existing revenue should be taken as the initial revenue upon which future adjustments on revision shall be directly based. Also that in districts in which the existing revenues are not considered to be adequate fair revenues should be fixed without delay for adoption as the initial revenues, and that in districts where the necessary data are not available initial revenues should be ascertained as soon as possible after the required survey and valuation. It seems to me that we may to some extent adopt the principle here advocated as a part of our programme It is not necessary that in Bombay we should at once fix certain revenues to be adopted at future revisions as the initial revenues of the tract: all that we require is an accurate initial valuation of the land field by field which may be accepted as the basis of our revenues in future revisions. If we once have a good valuation of each field, the assessment can be fixed at any time on whatever maximum rate may be considered suitable. I would propose that, instead of waiting until the period of original settlement expires in each taluka of a district, we should proceed at once

to review the work over the whole remaining area of the Presidency so as once for all to secure a correct initial field valuation. The great advantages of so doing will be that there will be no temporary stoppage of the work of the department, the duty will be performed by the present staff which has attained a pitch of excellence in surveying and soil-valuing which no new staff could ever hope to attain, and instead of the remaining work being done at straggling periods and with reduced establishments until well into the next century, as will be the case if we are to await the expiration of each settlement everything that is necessary for future revisions may be performed with the present survey establishments kept up to their full strength within a period of about eight years. In this way considerable waste of resources and expense will be avoided, as a fluctuating strength of establishments often leads to the keeping on of superior officers from absolute inability to replace them should the necessity for their services arise. If the method I propose be adopted, this department from the Survey Commissioner down to the lowest grade of measurer, will be fully and actively employed for a certain number of years, and an early date can be confidently looked forward to when the necessity for keeping up an expensive staff of surveyors and land valuators will no longer exist.

24. In paragraph 1 of your endorsement forwarding this correspondence, I am asked whether after field operations are placed upon a satisfactory basis there will be any necessity for a separate Settlement Department, and, if so, what will be its duties at a revision. On this point I am of opinion that the need for a separate Settlement Department will cease with the need for surveyors and classers. By the time re-measurement and re-classification have been finally completed the most difficult and intricate revision settlements will have been effected in the usual course by this department, and the complete and detailed records which are prepared at every settlement will be made over to the revenue authorities. For those districts which may then remain to be revised complete registers shewing the classification valuation of each field will be duly prepared and handed over. With these records at hand, the future operations of revising the rates in the one case and of working out the assessments in the other when the time comes to use the new classification will be perfectly simple. The only operation which is not stereotyped is that of fixing the revised maximum rates to be applied to the various groups of villages. But recommendations on this head might be made by the Collector of the district, who should forward through the Commissioner of the Division complete statistical information bearing on those points which are to be specially considered at a revision of assessments. When Government have decided the percentage enhancement which circumstances warrant, the rates for each field could be worked out in a wonderfully short time by a small staff of trained karkuns attached to the Agricultural Department. So admirably adapted are the records of the Bombay Survey for all requirements of revision, that if I were directed to advance the assessment of a large group of villages by a certain percentage I could have the assessment of each field worked out in my own office and recorded with all the

necessary detail, and with great precision, by a mere handful of karkuns in the course of a few days.

25. Having considered the first point as to how we can arrange the programme of future operation so as to eliminate from it re-measurement and re-classification, I now proceed to consider the second point raised by the Government of India as to how we can introduce into future settlements that element of certainty upon which so much stress is laid. The scheme proposed for the North-West Provinces aims at the attainment of this object by restricting the grounds upon which an increase on revision may be made to the following three considerations :—

(1) Increase of area under cultivation.

(2) Rise in prices

(3) Increase in produce due to improvements effected at Government expense

It is also proposed to limit the amount of enhancement which may be made on the one ground of rise in prices.

26 If this scheme were applied to the Bombay system I do not think it would effect any very radical change in the principles upon which the revised assessments are now fixed, although it would to some extent prevent the differentiating of the maximum rates of groups of villages with reference to any striking changes in their situation as regards new markets and roads and the opening out of railway communication. The first ground of increased assessment referred to by the Government of India would not operate in Bombay to cause an enhancement on revision, because under the system applied to waste land an immediate revenue is obtained and credited in the accounts upon all additional area brought under cultivation In the North-West Provinces, on the other hand, where the estate holder enjoys the fruits of any land within his estate which he may bring under cultivation for the period of the settlement, on condition that it is assessed to the revenue on the expiration thereof, the enhancement of revenue on this account at a revision must be a considerable item. The question of prices is, of course, the most important of all the considerations which sway the Settlement Officer in proposing a Bombay revised settlement, and it may be said that the general considerations which are enumerated in the Code are simply collateral ones upon which hinges the main question, *viz.* what proportion of the rise in values to which they have contributed should be added to the Government revenue The third point is fully provided for in section 107 of the Land Revenue Code, and is, of course, an indispensable consideration in the revision of rates

27. If it be conceded that certainty of assessment to some extent will be an improvement in our present system, that the fixing of these three considerations as the only grounds for enhancement of assessment will conduce to the attainment of that object, and that a certain sacrifice of prospective revenue may be made to ensure it, I see no real difficulties in the way of adopting the proposal. But it would be well before taking this step to consider whether this plan, which has approved itself to the

Government of India with a special view to the zamindari system of the North-West is a desirable element in a system which deals with individual rayats holding small parcels of land, and the majority of whom are totally uneducated and unintelligent. It appears to me that the sacrifice we would make by tying our hands to attain this end might prove to be fruitless of advantage to those whose interests are really sought to be promoted. The business-like zamindar of the North-West or the intelligent heads of a village community with whom the revenue is settled may be enabled to peep into the future and to obtain an insight into their future liabilities but there is very little likelihood that the average Bombay rayat will be able to avail himself of the facility for another generation at least There is great reason to fear, moreover, that by binding ourselves down to re-assess upon grounds which may be readily discounted we shall be putting into the hands of the capitalist or money-lender one more weapon against the ignorant rayat and will be supplying him with an advantage for which his keen intellect will very soon find a use I have already alluded to this subject in much the same terms in paragraph 29 of my report to the Secretary to Government, Revenue Department, No. 1714, dated 3rd September 1882 For my own part I [illegible]
in our rules f[illegible]
among the [illegible]

28. I have only to notice one more point, and that is the desire of the Government of India that the question of remissions and suspensions of revenue in years of failure of crops should be introduced into our Land Revenue Code as an integral part of our system of revenue collection. I have very carefully perused the circular of the Government of India, No. 58-R, dated 12th October 1882, and have given its contents much thought and attention It is admitted therein (paragraph 5) that in Bombay "the principles underlying the proposals which it contains already to a greater or less extent form part of the settlement system," but I would go further than this and say that there is not a single point raised by the Government of India with a view to the carrying out of these principles in the collection of revenue in the province under its direct control, which is not more fully and even more carefully considered and worked out in the preliminary operation of settling the revenue in this Presidency. In this process every subject affecting the security or insecurity of the tract as regards rainfall and crops is weighed and the maximum rate of every group of villages is graduated accordingly. The whole efforts of the Survey and Settlement Department, from the first operations of measurement to the final duty of proposing revenue rates, are directed to collecting information regarding the climate and its effect on the produce of the soil The Assistant Superintendent who measures the land the officer who follows him to classify it, and the Superintendent and Survey Commissioner who supervise the operations, have [illegible] for recording every peculiarity of [illegible] made it will be found that the [illegible] the rates than the security or insecurity of the crops in the area under settlement It is a common

thing to find a single taluka divided into five or six groups for no other reason except certainty or uncertainty of rainfall, and of all the considerations upon which rates are fixed this is unquestionably the most fully discussed and the most important. If the point were to be in any way neglected, the whole system of settlement in the Bombay Presidency would be at once shaken to its very depths. It is probable that the great variations of climate in the Bombay Presidency, especially in the belts of country between the Western Ghats and the plains of Central India, have tended to attract more attention to this subject in the process of settlement than in any other part of India.

29. Instances to shew the extent to which climate differences affect the maximum rates are not difficult to find. Let us take the district of Satara which stretches from the ghats inland for a distance of about 75 miles. In the western villages where the rainfall is heavy and seasonable the maximum dry-crop rate is as high as Rs. 3, while in the most eastern villages the prevailing maximum rate is only Re. 0-15-0. For this great distinction there is no reason but that in the one case good seasons are fairly frequent, while in the other they cannot be depended upon. Take again the instances of Indapur, the most easterly taluka of the Poona district, and Savda which holds the same position in the Khandesh Collectorate. The situation of these talukas with regard to the sea coast and the ghats is fairly similar. They differ but little in the matter of soils, both containing a considerable area of the best soil of the 1st order, classed at 16 annas. This soil in Indapur is rated on revision principles at Re. 1 per acre only, while in Khandesh it bears an original settlement rate of Rs. 2-6-0. As both talukas are intersected by the railway and have excellent roads and markets for the disposal of produce, there is not a pin to choose between them in these respects. But the great difference in the maximum rate which regulates the assessment of all classes of land is caused by the fact that, whereas Indapur is a district which possesses a capricious climate, Savda is situated in a part of the country which for some hidden reasons has a particularly steady rainfall. The revenue rates fixed for Indapur admittedly contemplate only one good year in three, and allow for a bad one in the same period, [illegible] rtainty of a fair annu [illegible] ıdapur and in Savda [illegible] ıow on their probabilities, then the necessity of allowing for remissions and suspensions in the former would be paramount. The effect of a rule which would bind a revenue officer to allow remissions in a district like Indapur every time there was a crop below a certain average, would simply be to pile concession upon concession on exactly the same grounds and to diminish still further an already very attenuated rent-charge.

30. While I am respectfully of opinion that any addition in this direction to our methods of revenue collection would be a work of supererogation and would be nothing less than admitting that a fundamental principle of our system had not been sufficiently observed in fixing the assessment, there remains the question of how to deal with abnormal or "catastrophic failures" which are apart from the constantly recurring

agricultural ills of the district and beyond the ken of the Settlement Officer. Although in districts of capricious rainfall normal failures are recognized and discounted, it is impossible to take into consideration great calamities or a succession of calamitous circumstances of the nature which has been experienced in some districts of this Presidency within the last 8 years. There could be no serious objection to make some provision in the rules to regulate the extent of failure which should be considered as abnormal and in which case the ordinary machinery of collection must be set aside. Any regulation of this kind, however, would be very difficult to frame, and I am of opinion that there is a distinct advantage in leaving the treatment of such cases to the Local Government When an abnormal failure does occur owing to scarcity of rain, the ravages of locusts or other such cases, it cannot remain unnoticed, and recent experience has shewn how much more strongly and more efficiently than if guided by hard-and-fast rules the Government of this Presidency has been able through its local officers to guard against undue pressure on the cultivator on the one hand and undue loss to the revenue on the other

31. As my criticism on the various points referred to by the Government of India has been somewhat discursive, I will endeavour to summarise briefly the suggestions which I have offered on each subject in the above report They are —

(1) Re-measurement and re-valuation of land at each revision of assessment are not contemplated in the Bombay system and after the present work has been placed on a satisfactory footing no such operations will be necessary at all

(2) In order to place the work on a satisfactory footing in districts remaining to be dealt with no general re-measurement or re-valuation is necessary Partial re-measurement and re-valuation will ordinary suffice.

(3) To ensure the absence of the necessity for field operations at future revisions it will be necessary to entertain at once a competent staff, in connection with the Agricultural Department to take over the settlement maps and records to keep them fully up to date and to collect year by year the statistics necessary to be considered at future revisions of rates

(4) In all districts, or portions of a district, the soils of which were classified subsequent to A D 1854, the same area entered in a survey number as *pót-kharab* at the first settlement shall be ordinarily allowed in any re-valuation which may be necessary for purposes of revision

(5) As the revenue from the assessment of *pot-kharab* is to be waived in future, and as all the heavy increases under that head have already been levied, it is not necessary to make any special provision regarding the gradual levy of such increases in future

(6) Instead of awaiting the expiration of each settlement to undertake the field operations which are considered necessary to perfect the basis of our initial revenues, such operations should be executed at

once in the remaining districts of the Presidency, and accurate field-to-field valuation registers made over to the custody of the Revenue or Agricultural Department.

(7) When the field operations are concluded throughout the Presidency there will be no necessity for a separate Survey and Settlement Department. The duties of fixing and tabulating the revised assessments may be performed by the Revenue and Agricultural Departments respectively.

(8) There is no material objection to introduce into the Bombay system of settlements some degree of certainty of future assessments as contemplated by the Government of India. But it is doubtful whether the character of the tenure in Bombay is in favour of such a change, and whether the sacrifice we would make would be productive of any real benefit

(9) The principle of remissions and suspensions of revenue is so fully considered in the settlement system of Bombay that its admittance into the system of collection as well would be superfluous, except to provide for the case of utterly abnormal failures of crops.

Read the following letter from the Government of India, Revenue and Agricultural Department, No. 953–R., dated 9th October 1883:—

I am directed to acknowledge your letter No 6340 of 27th August 1883, and to express the satisfaction with which the Government of India has received the concurrence of His Excellency in Council in the views and principles enunciated in the letter to which you reply, and to convey its appreciation of the able review and careful suggestions supplied by Mr. Stewart, the Commissioner of Survey. I am now briefly to communicate, in accordance with the request contained in your last paragraph, the views of the Government of India upon the most important points in your letter and in Mr Stewart's proposals.

2 The future assessment of *pôt-kharab* or land escaping assessment as unarable at the time of settlement, will be abandoned in all talukas and groups classified since 1854. This concession will finally terminate the longstanding question opened by Sir P. Wodehouse in 1874 and with respect to which no definite conclusion had hitherto been recorded. The Government of India is willing to concur entirely in the present decision of the Bombay Government on this matter.

3. With reference to the assessment of *pôt-kharab* in districts and tracts assessed before 1854, *i e.*, in which a re-valuation of soils is required, the Government of India agrees with the Bombay Government in accepting the assurance of Mr. Stewart that the amount of culturable *pôt-kharab* entered in the settlement record of the area still remaining to be assessed is of so small amount as to render any necessity for progressive revenues unlikely.

4. The division which has been suggested by Mr. Stewart of the districts of the Bombay Presidency into three classes will lead to the

speedy and final termination of the settlement operations in nine districts, *viz.*, seven in the first and two in the last class, leaving seven, those of the second class, subject to more or less re-classification. It is satisfactory to understand that the Bombay Government is able thus to guarantee the majority of the districts of the Presidency against re-valuation of soils.

5. The proposals of Mr. Stewart for the early disposal of the operations of the Survey Department in districts of the second class appear to the Government of India to be conducive both to the financial and administrative interests of the State as well as to the benefit of the agricultural population. His Excellency the Governor-General in Council is glad to accord his approval to the scheme set forth in Mr. Stewart's letter. Its chief advantages seem to be these.—

(1) The concentration of settlement operations within a shorter period than would otherwise have been possible and the consequent diminution of the cost of superintendence

(2) The earlier correction of the village records and maps—a measure of great administrative importance.

(3) The greater facility with which a revision of maps, soils and records can be made within the next few years than at any later date, in consequence of the fewer changes which will have taken place since the last survey.

(4) The greater knowledge which the agricultural population will be able at once to acquire of their future prospects at the termination of the present term of settlement.

6. I am to add that, with reference to the fourth advantage of Mr. Stewart's scheme indicated in the preceding paragraph, His Excellency the Governor-General in Council observes that the Government of Bombay does not consider the time yet come for a decision as to the extent to which enhancement of revenue at future settlements can be based upon the limited grounds recorded in the 13th paragraph of the letter addressed to the North-Western Provinces So far as classification of soils is concerned, it is understood that a fixed valuation of all soils as measured by the proportion they bear to a standard value will at the termination of the Survey Department's operations be openly declared, and that the percentage of enhancement in any one village or group of villages will be the same for all classes of soil at the next revision of settlement But it is not at present decided that the rate should in all villages or groups of villages bear a uniform relation to a rise in prices, as contemplated by the Government of India in the paragraph above quoted A decision on this point is deferred until the completion of the survey record It is on this point only that there seems to be any material difference between the proposals of the Bombay Government and the scheme of assessment suggested by the Government of India. I am, however, to express the concurrence of His Excellency the Governor-General in Council with the view taken in the 15th paragraph of your letter, that uncertainty of assessment should not

retained merely in the hope that it may act as a deterrent on the money-lending class. This argument is based on the unquestionable fact that the value of an agricultural holding as a security is enhanced by attaching certainty to the principles of assessment, and in that view affords additional confirmation to the opinion of the Government of India expressed in the 2nd paragraph of the letter to the North-Western Provinces, that the elimination of uncertainty is an important advantage to the holders of land

A fair corollary from the proposition seems to be that the rate of interest at which agricultural loans could be obtained, would be reduced, and this deduction appears to be, to some extent, borne out by the reports lately submitted on the scheme for an Agricultural Bank in a Deccan taluka in which the high rate of interest is attributed to the uncertainty of future assessment The Government of India cannot but thoroughly agree with the Government of Bombay that anything which may operate to hold back capital from agriculture is an evil, and trusts that His Excellency the Governor in Council may, when the time for decision arrives see his way to as close an approximation as possible to a fixed and certain method of enhancement

7 In continuation of the remarks in the preceding paragraph I am desired to make a brief reference to the 10th paragraph of your letter As a rule a local increase in the profits of agriculture resulting from a better market secured by new roads or railways is accompanied by a rise in prices at that market It was contemplated indeed by the Government of India that the local increase of profits would be sufficiently covered by a consideration of the local increase of prices This view was not perhaps indicated with full clearness in the letter to the North-Western Provinces, but the option given to the Local Government in the 27th paragraph of choosing the market, at which prices should be registered, was intended to meet the event of a local rise in prices which would justify the enhancement of revenue in a particular locality. Were this course not adopted, the Government of India apprehends that a consideration of rise in profits, apart from rise in prices, might sometimes lead to undue enhancement, in other words that the same advantage might be charged for twice over, once as giving increased facilities, and once as an element in the increase of prices

8. In the 16th paragraph of your letter the question of suspensions and remissions is dealt with. The views of the Government of India on this matter have already been explained in previous communications.

9. The assignment of the important duties indicated by Mr. Stewart to the Agricultural Department is so completely in accord with the scheme for an Agricultural Department advised by the Government of India in its resolution of December 1881, that it is needless for His Excellency the Governor-General in Council to assure the Bombay Government of his full acquiescence in this part of its proposals. The Government of India is glad to know that important administrative work will be found for the department, which will at the same time ensure its more complete acquaintance with the agricultural condition

of every portion of the Presidency, and also enable it to effect a considerable economy and accuracy in future revisions of settlement.

10. In conclusion, I am desired to accord the thanks of His Excellency the Governor-General in Council to the Government of Bombay for the earnest and cordial manner in which it has given its consideration to the important questions placed before it in my communication of the 15th of May.

Resolution.—Copies of the letter from the Government of India, No. 953-R., dated 9th October last, and of the whole correspondence on the subject should be forwarded for information to the Commissioners of Divisions and in Sind, and the Survey and Settlement Commissioner.

J. MONTEATH,

Acting Under Secretary to Government.

APPENDIX IV.

THE REMUNERATION OF VILLAGE OFFICERS.

The classes of *vatans* to which the system of settlement described in this appendix was applied are two in number, *viz.*, the patel or hereditary village headman, the kulkarni or hereditary village accountant. Of these, the hereditary patel is found in all the different divisions of the Presidency, but the kulkarni, for historical reasons into which it is impossible to go here, only in the Deccan and Southern Maratha Country, and in Konkan though very few, but not in Gujarat. As the principles according to which the settlement of these *vatans* was made differs somewhat in each of these divisions it will be necessary to consider each separately.

A.—THE DECCAN AND SOUTHERN MARATHA COUNTRY.

The sources of income in the case of both the patel and kulkarni *vatans* were three in number, *viz.*:—

(*a*) Land held either free of assessment or subject to an annual reduced assessment called the *mamul judi* (*i.e.*, customary quit-rent).

(*b*) Direct levies of cash and kind from the rayats or compensation in lieu thereof, called *parbhara haks*

(*c*) Cash payments from the Government treasury. The latter were allowances such as *potgi* (subsistence) or *kagad bab* (stationery), etc.

In determining upon the nature of the settlement to be applied to these *vatans* the chief problems to be settled were two, *viz.*:—

(*i*) The amount of remuneration to be paid to the individual performing the duties of the office called the "officiator."

(*ii*) When the profits of the *vatan*, whether in land or cash, exceeded the amount of this remuneration, how to dispose of the balance.

Wingate's Settlement, 1851

The first settlement of these *vatans* was made in 1851 by Wingate The principles of settlement adopted were:—

(*a*) The amount of the "*vatan* emoluments", as they were called, was first fixed. These consisted of—

(*i*) the survey assessment of the land held *minus* the amount of the *mamul judi*;

(*ii*) the amount of the *parbhara haks*,

(*iii*) the allowance from the treasury.

(*b*) The amount of the remuneration to be paid to the officiator was then determined according to a scale known as "Wingate's scale" by which it was fixed at a certain rate per cent upon the total land revenue of the village.

(*c*) The amount of the remuneration so fixed was then deducted from the "*vatan* emoluments" and the balance, if under Rs. 20, was allowed to be retained by the vatandar, and if over Rs. 20, the case was reported to the Inam Commission for inquiry and orders. In making this deduction recourse was had first to the *parbhara haks* and the treasury allowance, the balance being made up from the land assessment only if these were insufficient.

The unsatisfactory feature of the settlement described above was the inordinate delay which was entailed by the reference to the Inam Commission of all cases where the balance was over Rs. 20. In 1860, therefore, new orders were passed by Government under which the settlement was for the future to be made on the following basis:—

The Orders of 1860.

(a) The existing order of taking the different items comprising the *vatan* into calculation was changed. Recourse was to be had first to the assessment of the land *minus* of course the *mamul judi* and only to the *parbhara haks* and treasury allowance if this proved insufficient.

(b) If there was a surplus of this assessment over the amount required for the remuneration of the officiator, then an additional *judi* of half this balance was to be imposed. Thus, to take a simple case—suppose a *vatan* of which the total survey assessment of the *vatan* land was Rs. 100 and the *mamul judi* was Rs. 20. Then the amount available for the remuneration of the officiator would be Rs. 100 *minus* Rs 20, *i e.*, Rs. 80. Supposing this remuneration to amount to Rs. 60, there would remain a balance of Rs. 20. According to the rules an additional *judi* of half this sum (Rs. 10) would be imposed and the balance of Rs. 10 left to the vatandar. The new *judi* so levied was called technically "*nim* (half) *judi*."

These were the principles according to which the remuneration of village officers in all the districts of the Deccan and Southern Maratha Country, with the exception of the Satara and Khandesh districts, were fixed at the original settlement. In Satara the remuneration was fixed according to a special scale fixed by Mr. Rose, the Collector in 1860, and in Khandesh according to a scale sanctioned by the Commissioner, N. D., in 1865.

In the year 1874, however, the question of the remuneration of village officers was again raised by Colonel Francis with the view of providing a somewhat higher scale of pay in the case of talukas brought under revision. Upon this reference certain orders were issued by Government in 1875, which were, however, subsequently cancelled on consideration of a report made by Colonel Anderson in 1877. This important letter which goes into the whole question with great clearness is reprinted at the end of this Appendix (*vide* p. 496) As the result of this letter a Committee of the three Revenue Commissioners and Colonel Anderson was appointed at the end of 1877 to consider the whole matter, and by Government Resolution No 7651, dated 28th December 1877, final orders were issued which are still in force. These orders are as follows.—

The Settlement of 1877.

Definitions.

1. "*Vatan* land emoluments" consist of the difference between the original *judi* or Government charge on the whole lands of the *vatan* and the full survey valuation or assessment thereof for the time being

2. The "appropriated amount" of the *vatan* land emoluments consists of the sum imposed in the form of an addition to the original

judi to meet, so far as it can, the remuneration of the officiator as fixed according to the orders of Government from time to time.

3. The "unappropriated *vatan* land emoluments" consist of that [illegible] land emoluments [illegible] the remunera- [illegible]

Rules.

1. The *mamul* or ancient recorded *judi*, or the highest recorded ancient payment, whichever may be the higher of these two sums, shall be considered to be the ultimate limit of *judi* or Government charge upon the service *inam vatan* lands of village officers exclusive of any charge which it may seem fit to Government to impose for the remuneration of the member or members of the *vatan* appointed by Government to officiate, so long as such charge on account of remuneration of service together with the original *judi* does not exceed the survey assessment for the time being of the whole lands of the *vatan*.

2 The *vatan* emoluments are liable for the payment of the officiator up to their whole survey valuation as at any time fixed and any portion of this valuation in excess of the requirements at any time for the payment of the officiator may be appropriated at any future time, if it is in the opinion of Government necessary to increase the sum payable to the officiator.

3. In Government Resolution No. 331 of 26th January 1860 it was decided that in commutation of enquiry by the Inam Commission into the title on which unappropriated *vatan* land emoluments were held. additional *judi* of one-half the survey assessment for the time being should be levied on the unappropriated amount. It is now clearly ruled that upon its being necessary to add to the remuneration of the officiator or officiators, all such excess *vatan* land emoluments are liable up to the full survey assessment for the time being. It is, however, laid down that the above half *judi* is not liable to increase on account of the unappropriated *vatan* land emoluments for the time being attaining an increased valuation under a revision of assessment; but it is also to be understood that such *judi* may be lowered owing to a decrease in the value of the unappropriated *vatan* land emoluments rendering the *judi*, formerly fixed thereupon, more than half their value for the time being, or, as above provided, owing to a portion of the excess *vatan* land emoluments being at any future time appropriated for the payment of the officiator.

4. The scale of percentage remuneration adopted hitherto for patels shall continue in future. But the increased *chauri* and potgi or extra allowance proposed for patels by Colonel Francis in his letter No 1513 of the 24th September 1874, and sanctioned by Government Resolution No. 6141 of 1st November 1875, should be adopted.

5. As regards the kulkarnis, the percentage scale on which they are already paid found sufficient should be retained both for salary and stationery allowance, as sanctioned in Government Resolution No. 6141

1st November 1875, paragraph 4, with the modification as regards [illegible]d and extra allowance sanctioned in Government Resolution No 991 of the 4th February 1876.

6. In towns and very large and troublesome places an additional payment may be awarded to officiating patels At present under Wingate's rules an additional allowance of Rs. 10 is awardable to patels of large places. It is now provided that there shall be three additional classes of such special allowance; the four classes will then stand as follows:—

	Rs.
Class IV	10
,, III	20
,, II	30
,, I	50

7. The whole emoluments of village officers, whether consisting of salary, *potgi* or extra allowance, special allowance, or stationery allowance, are payable from the *vatan* emoluments so far as they are capable of meeting these charges.

8. On revision of assessment all service *inam* lands of every head, whether held by officiators or others, shall be liable to pay local one-anna cess on their survey valuation in common with all others lands

Summary. The effect of these orders may be summarised as follows:—

(1) The source of the officiators' remuneration is the survey assessment of the *vatan* land *minus* the *mamul judi* or "the highest recorded ancient payment" (for which see Colonel Anderson's letter, paragraph 15), "whichever may be greater." The sum so arrived at was called the "*vatan* land emoluments."

(2) The *mamul judi* or highest recorded payment is to be considered as fixed in perpetuity and not liable to increase

(3) The remuneration of the officiator, which includes, not only salary, but also *potgi* or extra allowance, and stationery and special allowances, is to be taken from the "*vatan* land emoluments" according to scale. The amount so taken is called the "appropriated amount" of the *vatan* land emoluments

(4) The balance of (1) over (3) is called the "unappropriated *vatan* land emoluments."

(5) This balance (which, of course, increases with every increase in the survey assessment) is liable to the full amount for the payment of the officiator if at any time Government thinks it necessary to increase his remuneration

(6) This balance is to be taxed at the old *mm judi* fixed at the original settlement which is not to be increased It may, however, be decreased—

(a) if, owing to a decrease in the total amount of the survey assessment, the old *mm judi* exceeds half the reduced assessment;

(b) if the remuneration of the officiator be increased as described in (5) above.

The remainder of the orders are clear and need not be summarised

The settlement of a *vatan* according to these principles, therefore, involves the following processes :—

(1) The determination of the *mamul judi* or highest ancient payment.

This is an intricate process called technically the *judi tharav* and involving careful inquiries into the old revenue accounts of the village in order to discover what were the actual assessments made upon the *vatan* land from time to time. The rules under which this inquiry was conducted are given on p. 506.

(2) The settlement of the remuneration of the officiator.

The amount of the officiator's remuneration was calculated according to the scale and rules given on pp. 484 *et seq.* This scale, it may be noted, was applied at revision to the Satara and Khandesh districts in supersession of the special scales which had been used at the original settlements

(3) The calculation of the *nim judi.*

As previously explained, the *nim judi* to be taken into account was that fixed at the original settlement, which is not to be increased, though it may be reduced in certain contingencies.

The following illustration will shew how these rules were applied in actual working :—

Suppose a *vatan* the circumstances of which are as follows :—

Assessment of land	Mamul judi	Nim judi.	Officiator's remuneration.
Rs.	Rs.	Rs	Rs.
85	27	9	40

then in this case—

(1) the "*vatan land emoluments*" amount to Rs. 85 *minus* Rs. 27 (the *mamul judi*), i.e., Rs. 58 ;

(2) the "*appropriated amount*" of the *vatan* land emoluments, therefore, is Rs. 40, the remuneration of the officiator, leaving a balance of Rs. 18 ;

(3) this balance of Rs. 18 forms the "*unappropriated vatan land emoluments*" ;

(4) from this balance is to be deducted the *nim judi* of Rs. 9, leaving a balance of Rs 9 in favour of the *vatan*.

Now suppose—

(i) Firstly, that the assessment of the land has been increased at revision from Rs. 85 to Rs. 96. Then the amount of the "*vatan land emoluments*" is increased from Rs. 58 to Rs 69 ; and the "*unappropriated vatan land emoluments*" from Rs. 18 to Rs. 29. Hence, as the

old *nim judi* of Rs. 9 cannot be raised, the balance in favour of the *vatan* increases from Rs 9 to Rs. 20.

(ii) Secondly, that the assessment of the land remaining the same, *viz.*, Rs. 85, the remuneration of the officiator is increased to Rs 45. Then, since the whole of the *vatan* land emoluments of Rs 58 are liable for the payment of the remuneration, the "unappropriated amount" is reduced from Rs. 18 to Rs 13 But, when this occurs, the original *nim judi* of Rs 9 becomes more than half the "unappropriated amount." Under Rule 3, therefore, the original *judi* may be reduced to half the new "unappropriated amount" of Rs. 13 and the new *nim judi* becomes Rs. 6-8-0 Similarly, if the assessment had been reduced at revision to Rs 75, the other items remaining the same, then, as the "unappropriated balance" is only Rs 8, the original *nim judi* will be reduced to Rs. 4.

B.—GUJARAT.

As the hereditary village accountant does not exist in Gujarat, the only hereditary village officer is the patel. The circumstances connected with the office of patel in Gujarat differ somewhat from those in the Deccan. Thus, the terms "vatan" and "vatandar" are not used, nor indeed are there any terms in use which exactly correspond with them. Again, the right to serve as patel is usually divided between several families, the heads of which serve in rotation at intervals of, generally, 5 years. Such families are called "matadari" and the representative of such a family is called a "representative matadar." These matadari families have not only a right to their turn in serving as patel, but also are bound to assist the patel in the execution of his duties and, therefore, have a share in the emoluments of his office The origin of these rights, it is interesting to note, are almost certainly to be found in the constitution of the original village community in Gujarat, when the village itself belonged to a body

determine the remuneration due to the matadars as well as to the patel.

These settlements have been made in accordance with a scheme introduced by the Commissioner, N D, in 1861, and sanctioned in Government Resolution No. 4646 of the 23rd November of that year The gist of these rules (which are given on p 514) is as follows —

(a) The source from which the patel's remuneration was derived was—

(i) land, held free of assessment,

(ii) cash allowances from the treasury

(b) In calculating the sum available for the remuneration of the officiator the profits of occupancy of land were taken into account at a sum equal to not more than the assessment fixed by the survey. That is to say, a patel, holding land free of assessment assessed at Rs. 25 by

the survey, was taken to be possessed of emoluments valued at Rs. 50, *i e.*, Rs. 25 on account of the assessment remitted and Rs 25 as the profits upon the cultivation of that area.

(c) As there was no such thing as *mamul judi* in Gujarat, the elaborate processes of preparing the *judidar Patrak*, etc., described in the case of the Deccan system of settlement were not gone through

(d) The emoluments of the patel were divided into two parts, *viz.*, service remuneration and *chora kharch.*

Service remuneration.

This was calculated in accordance with Wingate's scale (*vide* pp 477 *et seq*) with additions in special cases. This sum was then paid from the combined profits of the land and the treasury allowance, the balance, if any, being recovered by assessing a portion of the land. Where the existing emoluments were less than the scale the deficiency was made up in cash.

Chora kharch.

This sum was assigned to the patels to cover the cost of repairing, cleaning and lighting the village *chora* and was fixed at double the amount given to talatis for stationery under Wingate's rules except in certain special cases when treble the amount was allowed.

C.—KONKAN.

1 *Thana and Kolaba.*

With the exception of 16 Watandars Kulkarnis in the Kolaba District the only hereditary village officer properly so called in the Thana and Kolaba Districts is the Patil.* The settlement of these vatans was begun in 1858. The first taluka settled was that of Nasrapur (now Karjat) for which Captain Francis submitted proposals in his letter No. 55 of 26th January 1859—a letter which is important as it lays down the principles upon which all the subsequent Konkan settlements were based In applying Captain Francis'first scale to other talukas various modifications were made therein till 1869, when a general scale was framed which was applied in the case of all talukas subsequently settled.

In these districts the settlement of the vatans of patels was accompanied by " both fall within the m either case will be foun

2. *Ratnagiri.*

A separate scale is in force for Ratnagiri which is given in Appendix IV (*g*), p. 518.

D.—KANARA.

The Kanara scale is given in Appendix IV (*h*), p. 519.

* Government Memorandum No L. C. 4727—F—26-10-31.

APPENDIX IV (A)

Rules for the Valuation of the Existing Emoluments of the Patels, Naiks and Kulkarnis, framed by Captain Wingate.

1. All official land, whether recorded as *sarva inam judi* or otherwise, has been valued at the survey assessment of the same, *less* the amount of *judi* tax or other cesses to which it may be subject, as recorded in the public accounts of the year.

2. *Haks* on land levied direct from the cultivators previous to the introduction of the Survey Settlement by which they were abolished have been estimated at the valuation recorded in the public accounts previous to the survey, reduced by one-third on account of the trouble of collecting remissions, unrealized balances and the inferior produce in which the *haks* were ordinarily paid.

3. In cases where the *haks* upon land referred to in the preceding rule have not been recorded in the public accounts, their valuation has been found by applying the customary rate at which the *hak* was levied to the average extent of land in cultivation during the ten years preceding the introduction of the Survey Settlement to ascertain the maximum produce of the *haks* which has been converted into money at an average price, and the value so found reduced by one-third as in the preceding rule

4. Petty *haks* and perquisites upon land not recorded in the public accounts and to which the provisions of the preceding rule are not applicable have been estimated according to the best sources of information available, and the value so found reduced by one-third, as in the preceding rules.

5. Cash allowances under the denomination of *potgi* (subsistence), *kagad bab* (stationery), etc., not being subject to fluctuation from year to year have been estimated at the amount recorded in the public accounts of the year.

6. The sum total of the emoluments valued according to the preceding rules forms the value of all the existing *vatan* emoluments of each office.

7. The officiating patel and kulkarni of each village shall hereafter receive for the performance of the duties of his office a remuneration in cash of at least the amount fixed by the following scales for their offices respectively.—

Patel's Scale

For the first thousand rupees of the gross revenue of his village, three per cent.; for the second thousand two per cent., and for the balance of gross revenue beyond two thousand rupees one per cent. In addition to these percentages he shall also receive a fixed annual allowance of one

the survey, was taken to be possessed of emoluments valued at Rs 50, *i.e.*, Rs. 25 on account of the assessment remitted and Rs. 25 as the profits upon the cultivation of that area.

(*c*) As there was no such thing as *mamul judi* in Gujarat, the elaborate processes of preparing the *juditdar Patrak*, etc., described in the case of the Deccan system of settlement were not gone through.

(*d*) The emoluments of the patel were divided into two parts, *viz*, service remuneration and *chora kharch*.

Service remuneration.

This was calculated in accordance with Wingate's scale (*vide* pp 477 *et seq.*) with additions in special cases. This sum was then paid from the combined profits of the land and the treasury allowance, the balance, if any, being recovered by assessing a portion of the land. Where the existing emoluments were less than the scale the deficiency was made up in cash

Chora kharch.

This sum was assigned to the patels to cover the cost of repairing, cleaning and lighting the village *chora* and was fixed at double the amount given to talatis for stationery under Wingate's rules except in certain special cases when treble the amount was allowed.

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4. Petty *haks* and perquisites upon land not recorded in the public accounts and to which the provisions of the preceding rule are not applicable have been estimated according to the best sources of information available, and the value so found reduced by one-third, as in the preceding rules

5. Cash allowances under the denomination of *potgi* (subsistence), *kagad bab* (stationery), etc., not being subject to fluctuation from year to year have been estimated at the amount recorded in the public accounts of the year.

6. The sum total of the emoluments valued according to the preceding rules forms the value of all the existing *watan* emoluments of each office.

7. The officiating patel and kulkarni of each village shall hereafter receive for the performance of the duties of his office a remuneration in cash of at least the amount fixed by the following scales for their offices respectively :—

Patel's Scale

For the first thousand rupees of the gross revenue of his village, three per cent ; for the second thousand two per cent. , and for the balance of gross revenue beyond two thousand rupees one per cent. In addition to these percentages he shall also receive a fixed annual allowance of one

rupee, when the gross revenue ranges from 11 to 20 rupees; of two and a half rupees when the gross revenue ranges from 21 to 30 rupees; of 5 rupees when the gross revenue ranges from 31 to 50 rupees; and of 10 rupees when the gross revenue exceeds 50 rupees

Kulkarni's Scale.

For the first thousand rupees of the gross revenue of his village five per cent.; for the second thousand four per cent.; for the third thousand three per cent.; for the fourth thousand two per cent.; and for the balance of gross revenue beyond four thousand rupees one per cent. He shall also receive in addition a fixed allowance of two rupees when the gross revenue ranges from 11 to 20 rupees; of five rupees when it rages from 21 to 30 rupees; and of 10 rupees when the gross revenue is above 30 and does not exceed one thousand rupees; and when it exceeds this amount, but falls short of twelve hundred rupees, such an amount as when added to the percentage shall make up his salary to 60 rupees.

In additon to his salary the officiating kulkarni shall also receive an allowance for stationery as shown in the subjoined table:—

Gross revenue of village.	Stationery allowance. Rs a. p	Gross revenue of village	Stationery allowance Rs. a. p
Up to 20 Rs	1 0 0	1,251 to 1,500 Rs	6 0 0
21 " 50 "	2 0 0	1,501 " 1,800 "	6 8 0
51 " 100 "	2 8 0	1,801 " 2,000 "	7 0 0
101 " 200 "	3 0 0	2,001 " 2,500 "	7 8 0
201 " 350 "	3 8 0	2,501 " 3,000 "	8 0 0
351 " 500 "	4 0 0	3,001 " 3,500 "	8 8 0
501 " 700 "	4 8 0	3,501 " 4,000 "	9 0 0
701 " 900 "	5 0 0	4,001 " 4,500 "	9 8 0
901 " 1,250 "	5 8 0	4,501 " 5,000 "	10 0 0

The following table shews the amount of salary to be paid to officiating patels and kulkarnis according to the preceding scales:—

Gross Revenue of the Village	Patel's Salary — Percentages — Rates — 1st thousand,	2nd two and	3rd thousand	Amount	Additional fixed allowance	Total Salary	Kulkarni's Salary — Percentages — Rates — 1st thousand	2nd thousand	3rd thousand	4th thousand	5th thousand	Amount	Additional fixed allowance	Total Salary	[illegible] allowance	Grand Total including [illegible] allowance
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
				Rs a p	Rs a	Rs a p						Rs a	Rs.	Rs a	Rs. a	Rs a.
20	3			0 9 7	1 0	1 9 7	5					1 0	2	3 0	1 0	4 0
30	3			0 14 5	2 8	3 6 5	5					1 8	5	6 8	2 0	8 8
50	3			1 8 0	5 0	6 8 0	5					2 8	10	12 8	2 0	14 8
100	3			3 0 0	10 0	13 0 0	5					5 0	10	15 0	2 8	17 8
200	3			6 0 0	10 0	16 0 0	5					10 0	10	20 0	3 0	23 0
300	3			9 0 0	10 0	19 0 0	5					15 0	10	25 0	3 8	28 8
400	3			12 0 0	10 0	22 0 0	5					20 0	10	30 0	4 0	34 0
500	3			15 0 0	10 0	25 0 0	5					25 0	10	35 0	4 0	[illegible] 0
600	3			18 0 0	10 0	28 0 0	5					30 0	10	40 0	4 8	44 8
700	3			21 0 0	10 0	31 0 0	5					35 0	10	45 0	4 8	49 8
800	3			24 0 0	10 0	34 0 0	5					40 0	10	50 0	[illegible] 0	55 0
900	3			27 0 0	10 0	37 0 0	5					45 0	10	55 0	5 0	60 0
1,000	3			30 0 0	10 0	40 0 0	5					50 0	10	60 0	5 8	65 [illegible]
1,100	3	2		32 0 0	10 0	42 0 0	5	4				54 0	6	60 0	5 8	65 [illegible]
1,200	3	2		34 0 0	10 0	44 0 0	5	4				58 0	2	60 0	5 8	[illegible]
1,500	3	2		40 0 0	10 0	50 0 0	5	4				70 0		70 0	6 0	76 0
2,000	3	2		50 0 0	10 0	60 0 0	5	4				90 0		90 0	7 0	97 0
2,100	3	2	1	51 0 0	10 0	61 0 0	5	4	3			93 0		93 0	7 0	100 0
2,500	3	2	1	55 0 0	10 0	65 0 0	5	4	3			105 0		105 0	7 8	112 8
3,000	3	2	1	60 0 0	10 0	70 0 0	5	4	3			120 0		1[illegible]0 0	8 0	128 0
4,000	3	2	1	70 0 0	10 0	80 0 0	5	4	3	4		140 0		140 0	9 0	149 0
5,000	3	2	1	80 0 0	10 0	90 0 0	5	4	3	2	1	150 0		150 0	10 0	160 0
10,000	3	2	1	130 0 0	10 0	140 0 0	5	4	3	2	1	200 0		200 0	15 0	215 0
20,000	3	2	1	230 0 0	10 0	240 0 0	5	4	3	2	1	500 0		[illegible]00 0	25 0	[illegible]25 0

8. The salaries of officiators fixed by the preceding rule form the minimum rate of remuneration, but an addition to the fixed portion of the

officiator's allowance according to scale has been made in certain cases specified in the three following subsidiary rules:—

(1) When the balance of the total emoluments found by rule 6 beyond what is necessary to provide the remuneration of the officiator falls short of 5 rupees, this balance has been assigned as a permanent fixed allowance to the officiator in excess of his salary found by the scale in rule 7.

(2) When the balance of the total emoluments found by rule 6 beyond what is necessary to provide the remuneration of the officiator is large, *viz.*, when it exceeds the salary of the officiator according to scale, 10 per cent. of this balance has been assigned as a permanent fixed allowance to the officiator in excess of his salary found by the scale in rule 7.

(3) In the case of towns or large villages with a population of about 2,000 inhabitants or more, for the duties of which two officiating patels will generally be requisite, and the kulkarni will probably require an assistant, a permanent fixed allowance of 10 rupees has been assigned to each officiating patel and kulkarni in addition to his salary found by the scales in rule 7, when the balance of the total emoluments is sufficient for the purpose, but insufficient to bring the case under the operation of the preceding subsidary rule.

9 The gross revenue of the village referred to in rule 7 is the whole revenue leviable for any year before deducting any remissions.

10 The salary of each officiating patel and kulkarni is to be paid to him quarterly from the taluka treasury in cash, the three first quarter payments being made at one fourth of the whole amount received by the officiator during the preceding year, and the last quarter's payment at whatever may be due to him when the accounts of the village have been made up. But no part of the salary of an officiator shall on any pretext whatsoever be deducted or withheld from revenue due by himself or others, or from balances of Government revenue in his charge.

11. The salary of each officiator will vary with the fluctuations in the amount of the gross revenue of his village from year to year, as provided for by the scales in rule 7, but in order to avoid confusion and complication in the accounts, the appropriations made from the total emoluments of each *vatan* found by rule 6, to provide the remuneration of the officiators, have been fixed once for all with reference to an amount of gross revenue for each village determined under the two following rules.

12. When the assessment of the arable land, exclusive of alienations, under cultivation in 1850–1851, the year for which the settlement statements have been framed [illegible]

[illegible]

tion of the officiator, with a view to fix and determine the extent of the appropriations to be made for his support out of the total *vatan* emoluments.

13. When the assessment of the arable land specified in the preceding rule, in cultivation in 1850–1851, fell short of five-sixths of the assessment of all the arable, exclusive of alienations, in the village, the sum by which it so fell short has been added to the gross revenue of the village, and upon the total gross revenue so formed the remuneration of the officiator has been calculated, with a view to fix and determine the extent of the appropriations to be made for his support out of the total *vatan* emoluments.

14. The existing official emoluments, valued as provided in rules 1 to 6, have been appropriated for the support of the officiator, in the [illegible] ce of emoluments [illegible] lisposed of for the [illegible]

15. The value of *haks* on land, determined by rules 2, 3 and 4, has first been appropriated to provide the salary of the officiator, and when more than sufficient for this purpose, the excess at the amount shewn in the case of each *vatan* in detailed *mowzewar* statements in the native language is to be resumed on behalf of Government. By this arrangement the item of *haks* to village officers will disappear entirely from the accounts in future.

16. When the value of the *haks* appropriated under the preceding rule falls short of the remuneration of the officiator, the cash allowances, [illegible]

in the native language is to be resumed on behalf of Government. By this arrangement the items of *potgi*, *kagad bab*, etc , will disappear entirely from the accounts in future, or, in the event of Government deciding not to resume the excess of *haks* and cash allowances, the version of rules 15 and 16 to be the following:

(15) [The value of *haks* on land, determined by rules 2, 3 and 4, has first been appropriated to provide the salary of the officiator, and when more than sufficient for this purpose, the excess at the amount shewn in the case of each *vatan* in detailed *mawzewar* statements in the native language is to be paid to the officiator as a fixed allowance (*nemnuk*) in addition to his salary found by rules 7 and 8, when it has been customary hitherto for the officiator to appropriate the *haks*, or otherwise it may be assigned to the co-sharers as *sinecure* in accordance with the usage of the *vatan*]

(16) [When the value of the *haks* appropriated under the preceding rule falls short of the remuneration of the officiator, the cash allowances, valued under rule 5, have next been appropriated to make good the deficiency, and when more than sufficient for this purpose, the excess at the amount shewn in the case of each *vatan* in detailed *mowzewar* statements in the native language is to be paid to the officiator as a fixed allowance (*nemnuk*) in addition to his salary found by rules 7 and 8, but in no case to be assigned as *sinecure* to the co-sharers]

17. When the appropriations under the two preceding rules fall short of the sum required to make up the remuneration of the officiator, the official land has been taxed at the amount shown in the case of each *vatan* in detailed *mowzewar* statements in the native language to make up the deficit, but always so that the tax and pre-existing *judi* and other cesses together shall in no case exceed the survey assessment of the whole official land. When the official land of any *vatan* is held in shares, and these shares with the amount of *judi* and other cesses now payable on each are separately recorded in the village accounts, then the additional tax imposed on the whole official land of the *vatan* under this rule at the amount specified in the detailed *mowzewar* statements is to be apportioned on the several shares in proportion to the sum by which the full survey assessment of the land of each share exceeds the present *judi* and other cesses payable on the same, as in the following examples of a real case, which shows how an addition to the present cess of Rs. 43 is to be apportioned on the several shares of the patel's *vatan* of the village Hurralkutti in the Mamlatdar's division of the Parasgad taluka :—

Names of sharers	Survey assessment of the land of each share	Deduct judi now paid on each share.	Remaining profit on each share	Addition to the judi in column 3 apportioned on the profit in column 4.	Future judi-cess on each share, being sum of column 3 and 4
1	2	3	4	5	6
	Rs a p	Rs a. p	Rs a p.	Rs a. p	Rs. a p.
1. Ningungowda's ..	92 12 0	51 8 0	41 4 0	11 0 0	62 8 0
2. Ramchandurgowda's	95 12 0	51 8 0	44 4 0	12 0 0	63 8 0
3 Barnumgowda's	36 0 0	37 12 0			37 12 0
4 Bellungowda's	36 8 0	35 4 0	1 4 0	0 4 0	35 8 0
5 Barrangowda's	68 8 0	50 4 0	18 4 0	5 0 0	55 4 0
6 Ranumgowda's	77 4 0	55 0 0	22 4 0	6 0 0	61 0 0
7 Kenchungowda's	112 8 0	83 8 0	29 0 0	7 12 0	91 4 0
8. Purwutgowda's	79 0 0	75 4 0	3 12 0	1 0 0	76 4 0
9 Dod-Kendumgowda's	254 12 0	287 8 0	-	...	287 8 0
Total, Nine shares	853 0 0	727 8 0	160 0 0	43 0 0	770 8 0

In settling the amount of *judi* to be paid on each share the following rule should be observed :—

(*i*) *Up to one rupee*—

Take the nearest half anna, i e., neglect 3 pies and under and count 4 pies to 9 pies as half anna and above 9 pies as one anna, except in Konkan and below-Ghat talukas of the Kanara District where the nearest 3 pies should be accepted other fractions of an anna being inadmissible.

(*ii*) *Above one rupee*—

Take the nearest anna, i.e., neglect 6 pies and under, and count from 7 to 11 pies as an anna.

Provided that—

(1) When the application of the scale results in the sum total of new amounts being greater or less than the old amount of *judi* upon any *inam* estate, the difference should be distributed equitably over the new amounts of *judi* by a deduction or addition in the largest shares so as to make the total equal to the old amount of *judi*;

(2) Subject to proviso (1) no new *judi* shall be less than 6 pies or in Konkan less than 3 pies.

Note.—Proviso 2 may be ignored if it results in increasing the total *judi on the whole Estate*, taking into consideration the excesses or deficits on all the survey numbers forming the Estate and not otherwise. (R 15227—17-12-17)

18 When the appropriations under the three preceding rules fall short of the remuneration of the officiator, the deficit should be made up by Government.

19. By the operation of the settlement specified in the preceding rules the official land of every *vatan* will be held either wholly tax-free or subject to the total *judi* cess entered in the detailed *mowzewar* statements, and for the future the entire official lands of every office are to be entered in the accounts as *sarva inam* or *judi* according as they may be wholly tax-free or subject to a cess, and the present practice of recording a portion of the official land as *sarva inam* or wholly tax-free and a portion as *judi* is to be discontinued.

20. Nothing contained in any of the preceding rules is to be considerer as debarring any hereditary officer from relinquishing his official land when so disposed, and every such officer shall at any time, whether, at or subsequent to the introduction of the settlement prescribed in the foregoing rules, be permitted to relinquish by written *rajinama* any ent[illegible] had his official land may have been marked off [illegible] to [illegible] by [illegible] ass[illegible] relieve the remaining official land of the whole *vatan* of all tax whatsoever then this land is to be entered in the accounts as *sarva inam* or tax-free.

21. The official land under the settlement prescribed in the foregoing rules will form no part of the remuneration of the officiator, who is to be paid wholly in cash, and the land will, therefore, remain in the possession of the co-sharers who now hold it. But when the survey assessment of the whole official land of any *vatan* exceeds by a considerable sum, say by more than 20 rupees, the amount of *judi* tax payable on account of the said land under the settlement enjoined by these rules, then a list of such *vatans* should be forwarded to the Inam Commissioner, with a view to his determining whether official land is held upon valid titles or not.

10. The percentage due on any given revenue must be exactly calculated out. For instance, a patel on a revenue of Rs. 873 will be entitled to Rs. 26-3-0 which after reducing fractions according to ordinary rule becomes Rs. 26 under this head.

Note.—In calculating the remuneration, the rule for eliminating fractions of a rupee is to drop entirely any fraction below 4 annas, while fractions above 4 annas are treated as follows :—

From 0-4-1 to 0-12-1 taken as 8 annas.

From 0-12-1 to 1-4-0 taken as 1 rupee.

Thus 26-4-0 becomes 26-0-0.

26-4-1 to 26-12-0 becomes 26-8-0.

26-12-1 to 27-4-0 becomes 27-0-0 and so on.

11. The following table shows the amount of salary to be paid to officiating patels and kulkarnies according to the preceding scales calculated on even sums for example sake :—

Gross revenue of village.		Patel's salary.							Kulkarni's salary.									
		Percentages.				Additional fixed allowance			Percentages.									
		Rates							Rates.									
		1st thousand.	2nd thousand.	3rd thousand.	Amount.	Potgi.	Chowdi expenses.	Total salary	1st thousand.	2nd thousand	3rd thousand.	4th thousand	5th thousand	Amount	Additional fixed allowance (potgi).	Total salary	Stationery allowance.	Grand Total including stationery allowance.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
					Rs. a. p.			Rs. a. p.										
Rs.	20 ..	3	..	..	0 9 7	2	2	4 9 7	5	..		.		1	1	1	1	5
"	30 ..	3	..	..	0 14 5	2	2	4 14 5	5	.	.			1½	6	7½	2	9½
"	50 ..	3	..	..	1 8 0	2	2	5 8 0	5	..	.	.		2½	6	8½	2	10½
"	100 ..	3	..	..	3 0 0	2	2	7 0 0	5	..	.	.		5	10	15	2½	17½
"	200 ..	3	..	..	6 0 0	3	3	12 0 0	5	.	.		.	10	10	20	3	23
"	300 ..	3	..	..	9 0 0	4	4	17 0 0	5	..	.	.	.	15	10	25	3½	28½
"	400 ..	3	..	..	12 0 0	5	5	22 0 0	5	.	.	.	.	20	10	30	4	34
"	500 ..	3	..	..	15 0 0	6	6	27 0 0	5	..	..	.	.	25	10	35	4	39
"	600 ..	3	..	..	18 0 0	7	7	32 0 0	5	..	..	..		30	10	40	4½	44½
"	700 ..	3	..	..	21 0 0	8	8	37 0 0	5	..	..	..		35	10	45	4½	49½
"	800 ..	3	..	..	24 0 0	9	9	42 0 0	5	..	..	..	.	40	10	50	5	55
"	900 ..	3	..	..	27 0 0	10	10	47 0 0	5	..	..	..	.	45	10	55	5	60
"	1,000 ..	3	..	..	30 0 0	10	10	50 0 0	5	..	..	..	..	50	10	60	5½	65½

Gross revenue of village		Patel-salary							Kulkarni's salary									
		Percentages				Additional fixed allowance		Total Salary.	Percentages						Additional fixed allowance (potgi)	Total salary.	Stationery allowance.	Grand Total, including stationery allowance
		Rates.			Amount	Potgi	Chowri expenses		Rates.					Amount				
		1st thousands.	2nd thousand.	3rd thousand.					1st thousand	2nd thousand.	3rd thousand	4th thousand	5th thousand					
1		2	3	4	5	6	7	8	9	10	11	12	14	15	15	16	17	18
					Rs a p			Rs a p										
Rs.	1,100 ..	3	2	..	32 0 0	13	13	58 0 0	5	4	.	.	.	54	10	64	5½	69½
"	1,200 ..	3	2	..	34 0 0	13	13	60 0 0	5	4	..	..	..	58	10	68	5½	73½
"	1,300 ..	3	2	..	36 0 0	14	14	64 0 0	5	4	.	..	..	62	10	72	6	78
"	1,400 .	3	2	..	39 0 0	15	15	69 0 0	5	4	..	..	.	66	6	72	6	78
"	1,500 ..	3	2	..	40 0 0	16	16	72 0 0	5	4	..	.	..	70	2	72	6	78
"	2,000 ..	3	2	..	50 0 0	20	20	90 0 0	5	4	..	..	..	90	..	90	7	97
"	2,100 ..	3	2	1	51 0 0	23	23	97 0 0	5	4	3	..	..	93	..	93	7½	100½
"	2,500 ..	3	2	1	55 0 0	26	26	107 0 0	5	4	3	..	..	105	..	105	7½	112½
"	3,000 ..	3	2	1	60 0 0	30	30	120 0 0	5	4	3	..	..	120	..	120	8	128
"	4,000 ..	3	2	1	70 0 0	30	30	130 0 0	5	4	3	2	.	140	..	140	9	149
"	5,000 ..	3	2	1	80 0 0	30	30	140 0 0	5	4	3	2	1	150	..	150	10	160
"	10,000	3	2	1	130 0 0	30	30	190 0 0	5	4	3	2	1	200	.	200	15	215
"	20,000	3	2	1	230 0 0	30	30	290 0 0	5	4	3	2	1	300	..	300	25	325

12. The salaries of officiators fixed by the preceding rule form the minimum rate of remuneration, but an addition to the fixed portion of the officiator's allowance according to scale will be made in certain cases specified in the three following subsidiary rules:—

I—When the balance of the total land emoluments found by rule 1 beyond what is necessary to provide the remuneration of the officiator falls short of Rs 5, this balance will be assigned as a permanent fixed allowance to the officiator in excess of his salary found by the scale in Rule 3

II—When the balance of the total land emoluments found by rule 1 beyond what is necessary to provide the remuneration of the officiator is large, *viz* when it exceeds the salary of the officiator according to scale 10 per cent of this balance will be assigned as a permanent fixed allowance to the officiator in excess of his salary found by the scales in rules 3 to 11. * But if the sum so assignable exceeds one-half of the whole allowance of the officiator according to scale (exclusive in the case of the kulkarni of stationery allowance), then a sum equal to one-half only of the salary of the officiator will be assigned to him under this rule.

*This provision existed in Dharwar, Sholapur and Ahmednagar only, but appears fairly applicable to all

III—In the case of towns or large villages with a population of about 2,000 inhabitants or more, for the duties of which the kulkarni may require an assistant, a permanent fixed allowance of Rs. 10 will be assigned to the officiating kulkarni in addition to his salary found by the scales in rule 3 when the balance of the total emoluments is sufficient for the purpose but insufficient to bring the case under the operation of the preceding subsidiary rule

13 The gross revenue of the village referred to in rules 4 and 7 is the whole ordinary revenue leviable on land for the last year before deducting remissions and suspensions, including *judi* but excluding grazing realizations

14 The salary of each officiating patel and kulkarni is to be paid to him half-yearly from the taluka treasury in cash, the first half-year's payment being made at half of the whole amount received by the officiator during the preceding year and the last half-year's payment at whatever may be due to him when the accounts of the village have been made up. But no part of the salary of an officiator shall on any pretext whatsoever be deducted or withheld from revenue due by himself or others or from balances of Government revenue in his charge.

14A After the introduction of a revision survey settlement into a taluka or portion thereof, the remuneration of the officiators therein should be annually calculated by the Collector until the revised scale of remuneration given in rules 4 to 12 of these rules is introduced by the Survey Department The annual calculation to be made by the Collector is to be made on the revised gross revenue of the year for which the remuneration is due, and in accordance with the scale in force in the taluka, and the amount arrived at should be paid to the officiators half-yearly in accordance with the preceding rule.

The scale of remuneration proposed will be sanctioned by the Collecto except when extra allowances are proposed for patels, in which case th sanction of the Commissioner should be obtained to the grant of the extr allowances

14B. After the introduction of a revision settlement into a taluka o portion thereof, the Survey Department will forthwith proceed with th enquiry into the question of *mamul judi* and on its completion will revis the salaries of the officiators in accordance with the scale 4 to 12 of thes rules provided that the revision so undertaken results in an increase i the existing emoluments of the officiators. The revision will be based o the gross revenue of the latest year for which figures are availabl information relating to which should be obtained from the Collector.

The revised salaries will be communicated to the Collector for sanctio and when necessary under rule 14A. the Collector will obtain the previou sanction of the Commissioner.

15 The salaries of the officiators, fixed by the Survey Department will be revised decennially in accordance with the fluctuations of the gros revenue of the village, but in order to avoid confusion and complication i the accounts, the appropriations made from the land emoluments of eac vatan found by rule 1 to provide the remuneration of the officiators wil be changed at the decennial revision only when the increase in the emolu [illegible] the decennial revisio when there is sp tantial increase in existing emoluments of the officiators

16 When the assessment of the arable land (exclusive of alienati under cultivation exceeds five-sixth of the assessment of all the a land exclusive of alienations in any village, the gross revenue of the shall be taken for the calculation of the remuneration of the officiator a view to fix and determine the extent of the appropriations to be n for his support out of the total vatan emoluments.

17. When the assessment of the arable land specified in preceding falls short of five-sixth of the assessment of all the arable land (exclu of alienations) in the village, the sum by which it so falls short wil added to the gross revenue of the village, and upon the total amoun found, the remuneration of the officiator will be calculated with a to fix and determine the extent of the appropriations to be made his support out of the total vatan emoluments.

18. The existing official emoluments valued, as provided in rul will be appropriated for the support of the officiators in the manner sp fied in the following rules, and the balance of emoluments remai after providing for the officiator is to be disposed of for the future the manner also provided for in these rules.

19. The whole of the land emoluments, valued according to rul [illegible]

Government letter No. 331, R. D., of 26th January 1860, para. 12.

taken, any balance required being made up from the treasury.

20. When the official land of any *vatan* is held in shares and these shares with the amount of *judi* and other cesses now payable on each are separately recorded in the village accounts, then the additional tax imposed on the whole official land of the *vatan* under this rule will be apportioned on the several shares in proportion to the sum by which the full survey assessment of the land of each share shall exceed the present *judi* and other cesses payable on the same, but always so that this tax and the pre-existing *judi* shall in no ...
assessn
examp
be app

No.	Names of sharers	Survey assessment of the land of each share.	Deduct *judi* now paid on each share	Remaining profit on each share	Addition to the *judi* in column 4 apportioned on the profit in column 5	Future *judi* cess on each share, being sum of columns 4 and 6.
1	2	3	4	5	6	7
		Rs a	Rs a	Rs. a	Rs a.	Rs. a.
1	Ningungowda's	92 12	51 8	41 4	15 4	66 12
2	Ramchandragowda's	95 12	51 8	44 4	16 4	67 12
3	Bammungowda's	36 0	37 12	...	....	37 12
4	Ballungowda's	36 8	35 4	1 4	0 8	35 12
5	Dod-Kenchungowda's	245 12	287 8	...	....	287 8
	Total, five shares	506 12	463 8	86 12	32 0	495 8

In settling the amount of *judi* to be paid on each share fractions of less amount than ¼ rupee are not to be admitted into the accounts, in accordance with the rule followed in regard to all shares of the survey assessment.

21. By the operation of the settlement specified in the preceding rules the official land of every *vatan* will be held subject to the total *judi* cess entered in the detailed village statements, and for the future the entire official lands of every office are to be entered in the accounts as service *inam*.

22. Nothing contained in any of the preceding rules is to be considered as debarring any hereditary officer from relinquishing his official land when so disposed, and every such officer shall at any time whether at, or sul... ...tion of the settlement ...

the survey, and on so doing the relinquished field, subject to the provisions of the rules in the following paragraph, is immediately to be entered in the accounts as *khalsat* land and the *judi* tax payable by the lands of the office or *vatan* lands is to be reduced by the full amount of the survey assessment of the relinquished field.

be lowered in consequence of a reduction in the said valuation owing to a larger proportion of the hitherto unappropriated *vatan* emoluments being now or at any future time appropriated for the payment of the officiator.

Government letter No. 331, R. D., dated 26th January 1860, and paras. 1 and 2 of Government Resolution No. 5304, R. D., dated 15th September 1876.

27. Any unappropriated excess of cash emoluments shall be absorbed by the Treasury and at once cease to be paid.

In order to exemplify the working of the above rules the following examples A and B are given of revision of emoluments of pate and kulkarni. In example A the original value of the patel's *vatan* under rule 1 is taken at Rs 47, as follows :—

			Rs.	a.	p.
Survey assessment	..	..	92	0	0
Deduct *judi*	..	..	45	0	0
	Value of *vatan*	..	47	0	0

and the original value of the kulkarni's *vatan* under rule 1 is taken at Rs 25 as follows :—

			Rs.	a.	p.
Survey assessment	..	..	57	0	0
Deduct *judi* ..	..	..	32	0	0
	Value of *vatan*	..	25	0	0

In example B the original value of the patel's *vatan* under rule 1 is taken at Rs. 400, as follows :—

			Rs.	a.	p.
Survey assessment	..	..	890	0	0
Deduct *judi* ..	..	..	490	0	0
	Value of *vatan*	..	400	0	0

and the original value of the kulkarni's *vatan* under rule 1 is taken at Rs. 600, as follows :—

			Rs.	a.	p.
Survey assessment	..	..	700	0	0
Deduct *judi* ..	..	..	100	0	0
	Value of *vatan*	..	600	0	0

Revenue and population of village.		Patel	Rupees	Kulkarni.	Rupees.
	Rs.	A		A.	
Revenue ..	600	Percentage allowance (Rule 4).	18 0	Percentage allowance (Rule 7).	30 0
Population .	600	Potgi (Rule 5) .	7 0	Potgi (Rule 8) ..	10 0
		Chowri allowance (Rule 5). (No extra allowance under Rule 6).	7 0	Stationery allowance (Rule 9)	4 8
				Total ..	44 8
		Total ..	32 0	Value of vatan (Rule 1).	25 0
				Amount payable from treasury.	19 8
		Value of vatan (under Rule 1).	47 0	Total ..	44 8
		Balance left after deducting remuneration of officiator ..	15 0		
		Deduct* half judi imposed on balance (under Rule 25) ..	7 8		
		Balance left to vatan ..	7 8		
	Rs	B		B.	
Revenue .	5,791	Percentage allowance (Rule 4).	88 0	Percentage allowance (Rule 7).	15 8
Population ..	4,2[illegible]0	Potgi (Rule 5) .	30 0	Potgi (under Rule 8) ..	..
		Chowri allowance (Rule 5).	30 0	Stationery allowance (Rule 9).	11 0
		Extra allowance (under Rule 6).	20 0	Add 10 per cent. of balance of total land emoluments left after providing above remuneration (Rule 12, clause II).	43 4
		Add 10 per cent. of balance of total land emoluments left after providing above remuneration (Rule 12, clause II).	23 4		
		Total ..	191 4	Total ..	212 4
		Value of vatan (ascertained by Rule 1).	400 0	Value of vatan (ascertained by Rule 1).	600 0
		Balance left after deducting remuneration of officiator.	208 12	Balance left after deducting remuneration of officiator.	387 12
		Deduct half *judi* (under Rule 25) which is Rs 104-6-0, but as under Rule 26 the half *judi* originally fixed is not liable to increase, it is confirmed.	100 0	Deduct half *judi* (Rule 25) which is Rs. 194-6-0, but as under Rule 26 the half *judi* originally fixed, Rs. 150, is not liable to increase, it is confirmed.	150 0
		Balance left to vatan ..	108 12	Balance left to vatan .	237 12

* *Note* —This applies to settlements of remuneration made for the first time. In revision of such settlements the half *judi* fixed at the first settlement cannot be exceeded but may be reduced under Rule 26.

APPENDIX IV (C).

Colonel Anderson's letter on the settlement of Village Service Inams.

No. 978 OF 1877.

REVENUE DEPARTMENT

From—Colonel W. C. ANDERSON,
Survey and Settlement Commissioner, N. D.;

To—THE CHIEF SECRETARY TO GOVERNMENT,
Revenue Department.

Poona, 23rd July 1877.

SIR,—With reference to Government letter No. 3725 of the 14th ultimo, I have the honour to forward the following remarks after reading the whole correspondence forwarded to me with the above letter.

2. In the first place I must state that an evident misapprehension pervades the latter part of this correspondence commencing with the letter of Government of India, No. 518 of the 20th July 1876, which casts doubt upon the expediency of guaranteeing in perpetuity the amount of *judi* payable on the surplus lands of a *vatan* and this apprehension is carried through the letter of the Bombay Government in the Revenue Department No. 2073 of the 31st March 1877. In reality Bombay Government Resolution No. 6141 of the 1st November 1875 was never intended to make the *judi* on the surplus lands of a *vatan* permanent so far as to preclude those surplus lands being drawn upon at any future time to the extent of their full survey valuation in order to provide the remuneration of the officiators. The real meaning of the Government Resolution No. 6141 of the 1st November 1875 in the 3rd to 6th lines of the second paragraph is that Government will not increase the *judi* originally fixed on the surplus or unappropriated land emolument, but this only holds so long as those emoluments *are surplus* or unappropriated. The instant that these excess land emoluments are required for the payment of the officiator, from his remuneration being increased from any cause at any time, those lands now surplus will cease to be so partially or entirely. The *judi* or so-called "quit-rent" originally fixed on the surplus land emoluments was never intended to be permanent, except so long as the lands were actually surplus; on the lands ceasing to be surplus the guarantee evidently no longer applied.

3. While the lands were surplus the half *judi* originally imposed was

That this was an idea inherent in the Government Resolution No. 6141 of the 1st November 1875 is plain from the passage about the middle of the second paragraph—"In cases in which there are sharers the burden of paying more out of their lands to make up the increased pay of the officiator will be eased by the relaxation of the rule for levying a quit-rent on the surplus lands in those cases in which a quit-rent is leviable under existing settlement, etc., etc."

4 The principle of the Government Resolution No. 6141 of the 1st November 1875 is clear—it was intended to hold the emoluments of the *vatan* applicable to the last rupee to the remuneration of the officiator as fixed from time to time, but it was not desired to make money out of the surplus emoluments, and though at every revision so long as the present percentage scale of remuneration or anything near it is retained, the valuation of the surplus emoluments is as likely to increase as to decrease Government surrendered the undoubted right to participate in that increased valuation of those emoluments so long as they remained unappropriated surplus —

Case	Vatan lands		Profit on lands of vatan or difference between columns 2 and 3	Appropriated for payment of officiator by imposition of additional judi	Unappropriated surplus	Patel's vatan	
	Ancient judi	Survey assessment				Half judi on column 6	Judi payable Total of columns 2, 5 and 7.
1	2	3	4	5	6	7	8
	Settlement at time of original survey 30 years back of a patel's vatan.						
1	100	300	200	140	60	30	270
	Settlement at time of revision survey of the same patel's vatan given in case No 1						
2	100	450	350	220	80	30	370
	The same patel's vatan, the officiator's remuneration having been increased.						
3	100	450	350	260	40	20	380
	The same vatan, the patel's remuneration having been again increased.						
4	100	450	350	300			450

5. For the sake of elucidation of the above it may be well to give examples (which will obviate any chance of misapprehension) drawn up on the plan intended to be laid down in Government Resolution No. 6141, dated 1st November 1875, which is in fact the plan I would advocate.

6 Case No 1 by its headings explains itself after providing for the remuneration of the officiator by an additional *judi* on the *vatan* lands, Rs. 60 (column 6) remains as surplus on which Rs. 30 (column 7) is imposed as half *judi*.

7. In case 2. The same *vatan* has come under revision in the Revision Survey, the survey assessment or valuation has risen to Rs. 450 and the appropriation for the payment of the officiator is supposed to have been increased to Rs. 220, the unappropriated surplus has increased to Rs. 80 (column 6), but the *judi* payable thereon is not increased and remains at Rs. 30 as that was the sum fixed at the last settlement which it is now proposed to make final *quo ad* any surplus (paragraph 4 above) for the time being.

8. In case 3. The same *vatan* is supposed to be dealt with, but the sum required for the remuneration of the officiator in the form of additional *judi* is supposed to be Rs. 260, thereby reducing the surplus (column 6) to Rs. 40 The *judi* thereon falls to Rs 20 (paragraph 4 above).

9. In case 4. The same *vatan* is again dealt with, but in consequence of a large percentage rate of remuneration having been granted to the patel, Rs 360 (column 5) are required from the *vatan* in the shape of additional *judi* But the whole profits (column 4) only amount to Rs. 350, theref
of the survey as
the treasury
ments is provided for in paragraph 8 of Government Resolution No 331 of 1860.

10 The valuation of the *vatan* lands would be subject to probable increase at future revisions of assessment, and of course the percentage remuneration of the village officers would concurrently rise in amount, supposing that the percentage rate now in force is retained which is at least probable

11 It is clear that when there is but a single shareholder holding land in a *vatan* and he is the officiator, which by no means follows as a matter of course, he would in no degree benefit pecuniarily by having an additional *judi* placed on the *vatan* land, and that sum paid over to him, if that additional *judi* was the sole and sufficient source of remuneration it would be giving with one hand and receiving with the other, but the cases are. I understand, rare in which there is but one actual shareholder, though one only may be recorded in the accounts, and as many as six, eight or more actually recorded are common in the south of the Presiden
whether recorded or
pay increased *judi* so
ments of the *vatan* wa
but also the total contributions of the other shareholders

12. It is said that if certain land was considered to be sufficient remuneration for an office 30 years ago, a change of the recorded valuation of that land does not increase the actual value of it to a vatandar. This argument will only apply as regards the comparison of one year with that preceding it. What we have to look to is the value at intervals of 30 years or whatever period may be fixed for the duration of settlements. It is not the survey valuation of land at different periods which indicates the value of it to the *vatan*, but the rental procurable for it by the vatandar—30 years ago I apprehend that rent could hardly be procured much in excess of the survey assessment in consequence of the large area of Government waste land available for anyone to take up. Now we know from unimpeachable data that treble, quadruple and even larger multiples of the land tax are procurable as rent for land, and that the amount of rent is the measure of the actual profit of the vatandar and not the amount of the Government land tax.

13. We know too that the natural tendency of the rental of land is to increase with population and exports, and that whatever rental is now procurable, it may be fairly expected to increase much in the next 30 years, and thus though the land attached to the *vatan* remains the same, the profits derived from it by holders will continually increase. Therefore, in the rare case of one shareholder being also the officiator, it cannot be said that the remuneration though consisting of the same land was only of the same value at the end of 30 years as it was at the beginning. The value of the *vatan* land will certainly have increased in a greater ratio than the survey valuation of it, since at revisions we do not look to appropriate the whole increase of rental for the State, but to share it between the State and the landholder.

14. But another and very important question has sprung up recently in connection with the revision of village officers' *judi* and remuneration on revision settlement, namely, that referred in my letter No. 1589, dated 23rd November 1876, to the Revenue Commissioner, Southern Division, which is, I believe, now before Government, having been forwarded by the Revenue Commissioner, Khandesh district, with his No. 589, dated 17th March last.

15. The question referred to is, what is to be assumed to have been the ancient *judi* or so-called quit-rent on *vatan* lands? We find in the old village account that a certain sum was recorded as the *mamul* or established *judi*, and a certain sum is recorded "as collected".* Prior to the first survey settlement we find that this latter sum varies from year to year, or every few years it was added to or remitted from at the discretion, and evidently forms the irregular proportion of these remissions in different villages at the somewhat uncertain† discretion of the Assistant Collector making the annual *jamabandi*. This I know from the examination of old accounts and from my own personal knowledge and recollection of the procedure of times antecedent to the settlements made 30 years ago. Without this personal knowledge I could not write regarding this question with the certainty I feel I can do, for though much information regarding it is doubtless scattered about in the correspondence of years long past, it is not easy to lay hands upon that illustrating any particular point.

16. Before the first survey settlement the condition of the village officers was [illegible]
levies of gra [illegible]
and from *ina* [illegible]
tively heavy [illegible]
fair assessment. They were not allowed to resign a portion of their *inam* lands and obtain a corresponding reduction of *judi* for fear of frauds being thereby committed, for no trustworthy record existed of area or

* In some parts we also find another entry called *jasti sal beri* or the highest amount recorded as having been collected. This is often more than the recorded *mamul judi* and was in some cases actually the sum collected in the year before the settlement. This sum, where in excess of the *mamul judi*, would appear to represent the limit of demand as a recorded actual payment.

† Uncertain from the absence of any trustworthy data on which to grant the remission.

of value or quality of these lands. Resignation, if admitted, was required to be of all right in the *vatan*, an alternative which would only be adopted as a very last resource.

17 When the first survey settlement was made, vatandars acquired the right to resign any entire survey field and obtain a reduction of the *judi* equal to the survey assessment of the field so resigned.

18 Further, instead of the *mamul* or "established *judi*" being taken as representing the annual demand, the actual collection of the preceding year was, I believe, generally recorded as such, and if the survey assessment of the *vatan* lands was less than that payment the full survey assessment was recorded as the future *judi* payment—of course for the period of the settlement only The *vatan* thus paying full assessment shewed no "profits" and the remuneration of the officiator according to the scale fixed devolved entirely upon the treasury.

19 It may be asked why, when the *mamul judi* or ultimate liability was clearly recorded, was the last year's reduced payment reckoned as the former *judi* ? The answer to this I can give. The village officers are the most important link in our administration ; they were in a very reduced condition, a large proportion of their *vatan* lands was waste and unproductive to them, they were got to serve with difficulty, no plan of providing officiators with remuneration was in existence, in consequence of financial objections, and in spite of constant urging Captain Wingate did not get sanction for it till 1851, and then only by personally urging the question in England.

20 Under all these circumstances it would have been destruction to have in any way increased the payment of *judi* by village officers. The larger portion would have been thrown up, and a perilous dislocation in a most important point of the administration would have occurred. Consequently past payments were generally adopted as the maximum with the provisions for alleviation mentioned in preceding paragraphs. In case of *vatans* proving of excessive value, far above the requirements of the office, they were not intended to be exempt from investigation by the Inam Department.

21 It was specially provided that all excesses over Rs. 20 should be so investigated. The village officers had the power of helping themselves freely to land and of pointing out what extent they pleased as their *vatan* lands. This power they had doubtless freely used The compensation provided was investigation by the Inam Commission of all surpluses of material amount, but after the lapse of several years no excesses had been taken up and investigated though long lists had been reported. After some correspondence the orders contained in paragraph 5 of Government Resolution No. 331 of 26th January 1860 were passed, imposing half *judi* on surplus land emoluments in substitution for investigation by the Inam Commission From the wording of paragraph 7 of that resolution "the portion of the *vatan* held in excess of the officiating member's emoluments will be liable to no further contribution within the period ", that is of thirty years mentioned in the preceding paragraph, it is clear that the half *judi* settlement on the surplus or excess

was only for 30 years, and was not permanent. In Satara for special reasons a different system was sanctioned, and by Government Resolution No. 4321 of 31st October 1859, the surplus was charged with full survey assessment, remaining however recorded as *inam* or *vatan* land.

22. It must be clear that any reduced payment of *judi* adopted at the first settlement, less than the *mamul* or established recorded *judi*, though fixed at the rate of the full survey assessment for the time being in consequence of that assessment being less than the last year's actual payment, was fixed for the period of the settlement or for thirty years, and was with all other arrangements of that settlement subject to revision on the termination of the period I will here give an example in illustration :—

—	Mamul or ancient established judi.	Collection of year before settlement	Survey assessment of 1844-45	Judi fixed at settlement of 1844-45.	Profits on vatan land on settlement of 1844-45, difference of columns 3 and 4	Revision settlement of 1873-74, survey assessment	Simple judi on revision settlement.	Profits
	1	2	3	4	5	6	7	8
Case 1	300	150	180	150	30	260	200	40
Case 2	500	400	350	350	. .	520	500	20

23. In case 1, the actual collections of the previous year (column 2) being less than the survey assessment (column 3), they were recorded as the future *judi*, and Rs. 30 (column 5) or the difference between the survey assessment and the *judi* so fixed becomes the profit of the *vatan* which was entirely available for the remuneration of the officiator and was put on as an addition to the *judi* in 1852. The *mamul* or established recorded *judi* was not adopted as the ancient *judi* for the reasons given in paragraph 19 above. But according to my view we have now
a
su
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m.
revision of assessment the survey assessment was increased to Rs. 360, then more than Rs. 300 could not be collected, that being the *mamul* or ancient *judi*, the difference or Rs. 60 would become "profit" and would be available to meet the remuneration of the officiator.

24. In case 2, at the head of the preceding paragraph, we find Rs. 500 as recorded *mamul judi*, Rs. 400 as the collections of the year before the settlement, and Rs. 350 as the survey assessment of 1844-1845 which became the *judi* payable for the 30 years, and there were thus no "profits" from the lands, therefore the officiator would be paid from the treasury. At the recent revision the survey assessment became Rs. 520, but Rs. 500 only can be collected in consequence of that being the ancient *mamul* or limit of liability to *judi* cess. The difference then of Rs. 20 between the *mamul* and the survey assessment becomes "profit" and *judi* to that extent could be imposed towards meeting the payment from the treasury to the officiator.

25. It must always be borne in mind that the remuneration of the officiator is paid on a fixed scale from the treasury under all circumstances and quite irrespective of whether more or less is recovered by an additional *judi* from the *vatan*. But when on revision settlement from any cause, such as the reduction of the revenues of a village, which does sometimes occur, the actual remuneration became less than was hitherto paid to the officiator, I propose to meet the case by a special allowance in [illegible] to

[illegible] his letter No. 589, dated 17th March last, forwarding my No. 1589, dated 23rd November 1876, to Government, differed from my view of our having a right to fall back on the recorded *mamul* or ancient established *judi* as the ultimate limit of liability to *judi* cess—not be it remembered to extra cess to provide officiator's remuneration—and considered that Captain Wingate's settlement of a lower sum than the *mamul* should be final and permanent in the absence of any notification to the contrary, overlooking the fact that the case should be reversed, and in the absence of any notification to the contrary all settlements made by Captain Wingate at the first revision were for 30 years only. The view of the Revenue Commissioner, Khandesh district, thus appears to me to be quite untenable. The effect of carrying out that view would be a very great increase of expense in connection with these village officers by the loss of a large sum of revenue justly due from them.

27. I may further add, if anything further is necessary to strengthen my view, that in the certificates of the Inam Commission, thousands of which passed through my hands in former times to be carried out and have the land referred to in them allocated, it was usual to find in the certificate " so much land confirmed on such a sum of *judi* (that being the *mamul* or established *judi*), but if the survey assessment should be less than the *mamul judi* the survey assessment to be alone collected so long as it remains less, but if at any future revision the survey assessment is raised and exceeds the *mamul judi* this sum last is alone to be collected."

28. In the letter of the Government of India forwarded with the Government letter under reply, "a report and statements shewing clearly the effects of the three proposals—those of Colonel Francis, Colonel Anderson and the Government of Bombay—on both the officiators and non-officiators" is called for, and the letter of the Bombay Government calls for the statement for all districts for which revised settlements have been carried out. It would be simply impossible if I was in full possession of all the data to frame these sets of comparative statements within [illegible] session of the [illegible] time. The st[illegible] and require to be made out with extreme care and always require to be frequently returned for correction. At the present time in consequence of the distraction occasioned by the famine it would be impossible to obtain these returns from the district authorities.

29. Moreover, I find that Colonel Francis' plan assumed the last year's payment of *judi* recorded previous to the last settlement as the limit of the Government demand on the *vatan* and not the *mamul* or ancient recorded established *judi* which appears to me to be the proper ultimate liability of the *vatan*, apart of course from the extra *judi* imposable to provide the remuneration for the *officiator*. In many parts of Poona the ancient *judi* cess appears to have been light and all was paid, but in the vicinity of Sholapur such would not be the case as the *judi* and *chali* cess on village officers was then very heavy, and large remissions from it appear to have been granted in the years *antecedent* to the last settlement, but these remissions were not of a *permanent* nature. Till the true *mamul judi* is ascertained, it would be *impossible* to draw up any contrasted scheme

30. I find in addition that Colonel Francis did not consider the patel's *chauri* or kulkarni's contingent allowance to be charges upon the *vatan*, which was an evident error, no precedent existing in Wingate's rules which are the authorized guide. The *vatan* is in fact liable to the utmost extent for all the pay and allowances of the officiator of every nature, this being the object of the original grant. I find in a single taluka that the amount of these allowances came to Rs. 1,358, but in this case from the paucity of *vatan* emoluments all but a small portion would have been chargeable on the treasury; in other talukas the case is different, and the *vatan* emoluments being ample, a most undue charge would be thrown on the treasury by Colonel Francis' plan which would amount to a very considerable sum in a collectorate.

31. Colonel Francis' proposed scheme was to increase all over the percentage rate of the remuneration on the revised assessment and to limit the liability of the *vatan* lands to the payment hitherto made by them on the valuation of the former survey and not on the revised survey valuation. There would thus have been heavier remuneration and decreased liability on the part of the *vatan* to provide it; all the extra payment would thus have fallen on Government and the principal people to benefit would be the non-officiating shareholders. In practice also Colonel Francis omitted, as explained in the preceding paragraph, to charge on the *vatan* the patel's and kulkarni's contingent allowance which would materially increase the charge on the treasury.

32. The plan which I proposed, which was that adopted by Government, was—

1st.—That the recorded *mamul* or ancient established *judi* be adopted as the limit of liability to *judi* proper on the lands of the *vatan* exclusively entirely of the *judi* to be imposed for payment of the officiator.

2nd.—That the *vatan* emoluments should be calculated on the revision survey valuation.

3rd.—That the *vatan* emoluments should be liable to the utmost extent to *contribute* to the pay and allowances of the officiator.

4th.—That surplus emoluments so *long as surplus* should not pay a heavier half *judi* than that fixed in 1860 under Government order No. 330, dated 26th January 1860, though it might be less from a

decrease of the surplus. Emoluments now surplus to be available for appropriation at any future time when the remuneration of the officiator may happen by Government order to be increased.

5th —Special extra allowances for places where extra work exists and to meet cases where the actual remuneration is from any cause reduced in carrying out the revision.

So far there is no difference between the plan of Government Resolution No. 6141, dated 1st November 1875, and that which I advocated, but *I would further propose to add the following:—*

6th —When from any cause the actual remuneration of the officiator falls short of that hitherto fixed an additional extra allowance may be granted to make it equal to what it was formerly.

33. While Colonel Francis' scheme threw a great part of the future payment of village officers on the treasury, and spares the shareholders, the Government scheme, as above explained, takes all it can from the *vatan* for the payment of the officiator, with the sole exception of clause 4, which leaves half the surplus to the shareholders, so long as it is not required for the officiators This will not induce the loss of any very large sum.

34 The difference in the expense of the two schemes will be very great. how great I am afraid to venture a guess. Land *vatans* run very large in the Southern Maratha Country, often amounting to land assessed at more than Rs. 1,000 for a single office in one village. I think, therefore, the difference in the cost of the two schemes would be reckoned rather by lakhs of rupees than by tens of thousands at the present revision, with a continually increasing expense at future revision. But the comparative cost of the two schemes is of small importance, since Colonel Francis' scheme has not been adopted by the Bombay Government

35. The scheme of the Bombay Government as contained in Government Resolution No. 6141, dated 1st November 1875, inferentially sanctioned the adoption of the *mamul judi* as the real cess on the *inam* land quite apart from the additional *judi* to be imposed to meet the payment of the officiator But this matter has now again been under discussion on the reference of the Revenue Commissioner, Khandesh district, who supports a course opposite to that laid down at clause 1 of [illegible] *il judi* [illegible] is not [illegible] officers [illegible] forma-tion is imperfect at present as to the amount of the *mamul judi* in the collectorates where it certainly did exist and is recorded. Still I have no doubt that the loss under this head would amount to many tens of [illegible] who have little or no *vatan* lands or other emoluments, cases of which kind are numerous. The loss too would not be final, as in many cases

the present survey assessment will fall much short of the old *mamul judi*, which might be attained at a future revision.

36 Though I cannot furnish the required statements now or at any early date for the reasons mentioned in paragraph 28 above, yet I hope that the above remarks will have cleared the way to a comprehension of this question in all its bearings and enable a final decision to be arrived at as to the course to be followed, which will then enable us to see in what form to obtain detailed information in order to carry out whatever scheme may be finally approved of and that information will differ materially according to the scheme adopted

37. I must apologise for the length to which this letter has extended; the subject is a somewhat complicated one in its several bearings and a good deal of misapprehension appears to have existed as to what was intended to be done I have endeavoured now by entering into full explanation to obviate any further doubt regarding the state of the case.

I have, etc.,

(Signed) W C. ANDERSON,
Survey and Settlement Commissioner.

APPENDIX IV (D).

Judi Tharav or fixing the Mamul Judi.

The procedure followed in fixing the *mamul judi* may be described as follows :—

Salwar patrak.

When the revised survey rates are introduced into a taluka, the Mamlatdar is called on to submit for each village separately a statement prepared in the annexed Form (A). This statement is called the *Salwar Patrak* and shews (1) the kind of *vatan*, (2) the name of the holder or vatandar, and (3) the amount levied on the *vatan* in each of the 5 years preceding that of the original settlement, as also in every fifth year of the 20 years previous On receipt of this statement the officer entrusted with the duty of settling the *mamul judi* takes out the highest amount levied on the *vatan* under the name of *judi* (columns 4, 5 and 6) in any of the years shewn in the statement, and to it adds the highest of the sums, if any, levied on the *vatan* as a cess or *patti* (columns 7 to 10) in any of the years above referred to. The total thus obtained is then entered in column 7 of the *Judidar Patrak* which is prepared in the annexed Form (B) The next thing to do is to ascertain whether at, or any time after, the original settlement any of the lands comprised in the *vatan* were relinquished, and, if so, to deduct the survey assessment of such land from the amount entered in column 7 and to enter the balance in column 26 of the *Judidar Patrak* as the "ultimate limit of *judi* or Government charge on the *vatan.*"

Judidar patrak.

2. In the old Kaladgi (now Bijapur) district, a somewhat different procedure* was followed in fixing the *mamul judi* in cases in which the vatandars held *chali* or Government lands with service *inams* and paid

* In such cases the *mamul judi* was fixed at the original settlement in the manner explained below —

(*a*) Where the lump sum formerly levied on the service and Government (*chali*) lands taken together exceeded the survey assessment of the *chali* or Government lands, the difference was fixed as the *mamul judi* on the service lands

	Acres.	Lump sum formerly levied.	Survey assessment.	Judi fixed by Captain Wingate.
Service inams ..	2	Rs. 15	..	Rs. 5
Government lands ..	3		Rs. 10	..

(*b*) Where the survey assessment of the *chali* or Government lands exceeded t[illegible] sum formerly l[illegible] service lan[illegible] tered [illegible] the [illegible] Gov[illegible]

	Acres.	Lump sum formerly levied.	Survey assessment.	Judi fixed by Captain Wingate.
Service inams ..	2	Rs. 15	..	..
Government lands ..	3		Rs. 18	..

judi or Government charge in a lump sum on the whole area. In such cases the amount of *judi* fixed by Captain Wingate at the original settlement was taken as the "highest recorded ancient payment" on the service lands and was recorded in column 7 of the *Judidar Patrak* without further enquiry. From the amount so recorded, the assessment of the relinquished lands, if any, was deducted (as was done in ordinary cases, paragraph 1 above) and the balance entered in column 26 as the "*ultimate limit of judi or Government charge on the vatan lands*"

(c) Where the difference called the *chali kasar* between the lump sum formerly levied and the survey assessment of the *chali* lands exceeded the survey assessment of the service lands, the latter was recorded as the *judi* or Government charge on the *vatan*.

	Acres	Lump sum formerly levied	Survey assessment	Judi fixed by Captain Wingate.
Service lands	2	Rs 15	Rs 4	Rs 4
Government or chali lands	3		„ 10	..

A

Salwar Patrak

Kind of vatan.	Name of vatandar	Year Fasli	Mamul judi	Jasti sal beriji	Wasuli judi beriji	Sir and gowdki	Salam patti	Harp sani	Others	Remarks.
1	2	3	4	5	6	7	8	9	10	11
			Rs.	Rs	Rs	Rs.	Rs	Rs.	Rs.	
Patilki ..	Ningan Gowda	1229	25		15		2			
		1234	25		15		2			
		1239	25	28	22		2			
		1244	25		17		2			
		1249	25		15					No *dakhla* as to levy of *salam patti* forthcoming for these years.
		1250	25		15					
		1251	25		15					
		1252	25	28	15					
		1253	25		15			..	..	

Notes.—(1) In this instance the original settlement is supposed to have been introduced in the year 1254 Fasli. The information obtained from the taluka authority is therefore for each of the 5 years preceding that of settlement (*viz.*, 1249 to 1253) and for every fifth year of the 20 years preceding 1249.

(2) The highest amount levied as *judi* from this *vatan* during the past 25 years is shewn to be 28. To this is added Rs. 2 levied as *salam patti* during the period ending with 1244 Fasli. The highest amount collected from the *vatan* in any one of the 25 years preceding that of the original settlement thus comes to Rs 30, which is accordingly to be taken as the "ultimate limit of *judi*" on the *vatan*.

B

FORM OF JUDIDAR PATRAK

B.

Form of Judidar Patrak

Kind of vatan.	Serial No	Name and father's name of the vatandar.	Lands comprised in the vatan.			Mamul judi or Government charge as per Salwar Patrak	Lands relinquished at the Original Survey.			Judi fixed at the original settlement by Captain Wingate	Lands relinquished after the introduction of the original settlement			Lands remaining in the vatan after relinquishment			Balance after deducting the survey assessment of the land relinquished from the mamul judi (column 7)	Judi imposed on the profit of the vatan		Total of columns 19, 20 and 21, being the amount annually levied	Lands comprised in the vatan			Judi fixed after revision settlement according to the revised rules of 1877	Scale judi, i e, amount to be appropriated for the remuneration of the officiator	Remarks.
			Survey No	Culturable land	Assessment according to the original survey.		Survey No	Area	Assessment		Survey No	Area	Assessment	Survey No	Area	Assessment		Mamul settlement Judi	Num judi (half judi)		Survey No	Area.	Assessment			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	21		22	23	24	25	26	27	28
				A	Rs	Rs		A	Rs	Rs		A	Rs		A	Rs	Rs		Rs	Rs. 82¼		A	Rs.	Rs		
Patilki	2	Ningan-Gowda	1 2 3	12 10 5	8 40 2	30	3	5	2	15	1	12	8	2	10	40	20		11		1 2	7 3	15 20	20	To be filled in when the remuneration is revised.	
			3	27	50																		35			

Notes.—1. Columns 1 to 6 explain themselves.

2. In column 7 is entered the highest amount levied from the vatan during the 25 years preceding that of the original settlement as per Salwar Patrak.

3. Columns 8, 9 and 10 shew details of land relinquished at the original settlement.

4. Column 11 shews the amount of judi fixed at the original settlement by Captain Wingate This is the amount of judi levied in the year preceding the settlement.

5. Columns 12, 13 and 14 shew details of lands relinquished after the introduction of the original settlement.

6. Columns 15, 16 and 17 shew details of land remaining in the vatan after relinquishments made at and after the original settlement.

7 Column 18 shews the amount of judi leviable on the land remaining in the vatan after relinquishment In this instance Nos. 1 and 3 bearing assessment Rs 10 are shewn to have been relinquished. Therefore the mamul judi as ascertained by the Salwar Patrak is reduced by that amount

8 Column 19 shews the difference between the mamul judi fixed by Captain Wingate (column 11) and the assessment of the land relinquished since the original settlement (column 14).

9. Column 20 shews the amount appropriated from the vatan at the original settlement for the remuneration of the officiator

10. Column 21 shews the nim judi imposed at the original settlement on the unappropriated vatan emoluments, i e, the profit of the vatan (Government Resolution No 331, dated 26th January 1860)

11 Column 22 explains itself

12 Columns 23, 24 and 25 shew details, according to revision survey of the land remaining in the vatan In this case Survey No 2 remaining in the vatan is divided into two separate Nos 1 and 2

13 Column 26 shews the mamul judi ' ultimate limit of the Government charge ' on the vatan In this case the highest amount levied from the vatan as per Salwar Patrak is Rs 30 From this is deducted the amount of assessment of the lands relinquished at and after the original settlement, viz, Rs 10 (columns 10 and 14) and the balance Rs 20 is fixed (column 26) as the mamul judi leviable in future

N.B.—Preparation of the judidar patrak of watan lands of village officers has been discontinued (R 5756 19)

Statement exhibiting the valuation of existing official lands, and emoluments of the Patels / Kulkarnis (as the case may be) of the Villages of the (name of taluka) Taluka belonging to the (name of district) Collectorate, and the proposed mode of providing the future remuneration of the officiators.

Consecutive No.	Name of Village.	Population.	Valuation of Vatan emoluments according to statement for the year received from the Mamlatdar — Value of Inam lands according to Revision Survey — Area.	Assessment	Deduct Mamul judi (Rule 1) payable to Government under Revision Settlement.	Balance of Vatan profit (being difference between the sums shewn in columns 5 and 6)	Cash hitherto paid from Treasury *less* the amount taken from Vatan profit to make up scale allowance	Total Vatan emoluments, being totals of columns 7 and 8.	Gross Land Revenue of the village determined by Rules 13, 16 and 17 upon which the settlement is to be effected — Gross Land Revenue of the village for the year (see Rule 13).	*Add* under Rule 17, the sum by which the assessment of arable lands under cultivation falls short of five-sixths of the assessment on all arable lands.	Total of columns 10 and 11, being the sum on which the remuneration (as per columns 13–16) of the officiator is to be calculated	Remuneration assigned to officiators according to Rule 12 — Scale allowance of officiator (Patel Rule 4, Kulkarni Rule 7)	Fixed allowance Potgi (Patel Rule 5, Kulkarni Rule 8)	Contingent allowance (Patel's Chowri Rule 5, Kulkarni's Stationery Rule 9).	Special allowance to Patel under Rule 6.	Total remuneration of officiator, being total of columns 13–16.	Balance of Vatan profit after deducting the sum shewn in column 17 from that shewn in column 7.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Patels.		A. g.	Rs	Rs.	Rs.	Rs	Rs	Rs	Rs	Rs	Rs a.	Rs	Rs a.	Rs	Rs. a.	Rs. a
1	Hadapsar ..	440	13 5	40	5	35	3	38	326	..	326	10 0	6	6 0	..	22 0	13 0
2	Loni ..	2,100	38 30	323	23	300	40	340	3,125	75	3,200	62 0	23	23 0	20	128 0	172 0
	Kulkarnis.																
1	Hadapsar ..	440	0 8	33	7	26	8	31	326	..	326	10 8	10	3 8	.	30 0	..
2	Loni .	2,100	67 5	284	4	280	23	303	3,125	75	3,200	124 0	..	8 8	..	132 8	147 8

Consecutive No.	Name of Village.	Additional allowance under Rule 12 to officiator to be made up from balance of profit shewn in column 18. — Additional allowance according to Rule 12, clause 1.	Additional allowance according to Rule 12, clause 2.	Additional allowance according to Rule 12, clause 3	Total additional allowances (columns 19 and 21)	Total remuneration of officiator, being total of columns 17 and 22	Mode of providing the amount of remuneration of officiators (column 23) — Amount taken from Vatan profit (see column 7)	Amount appropriated from cash allowance (column 8) to make up the total remuneration as per column 23	Total of column 24 and 25.	Cash payable in future from Treasury, being difference between sums shewn in columns 23 and 26	Details of balance of Vatan emoluments left after providing remuneration for officiator as per column 23 — Vatan profit (column 7) after deducting sum appropriated therefrom as per column 24	Cash allowance (column 8) after deducting amount appropriated therefrom as per column 25	Total of columns 28 and 29	Proposal for disposing of balance of Vatan profit shewn in column 28 — Manul half judi (Rule 26).	Half judi now imposed	Net Vatan profit after deducting the amount of column 32 from that of column 28	Vatan land how to be entered in the village accounts in future. — Area	Assessment	Deduct Net Vatan profit (column 33) omitting fractions.	Balance to be paid to Government as Judi being total of columns 6, 24 and 32 omitting fractions.	Remarks.
1	2	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
	Petta		Rs a		Rs a.	Rs. a.	Rs. a.	Rs a	Rs. a		Rs. a.	Rs a.	Rs. a.	Rs. a.	Rs a.	Rs a	Rs. a.	Rs. a.	Rs. a	Rs a.	
1	Halapur	..	.	..	..	22 0	22 0	..	22 0	..	13 0	3 0	16 0	5 0	5 0	8 0	13 5	40	8 0	32 0	
2	Ital	..	17 4	..	17 4	145 4	145 4	..	145 4	.	154 12	40 0	194 12	80 0	77 6	77 6	39 10	323	77 4	245 12	
	Kolhapur,																				
1	Hadapsar	..		..	..	30 0	26 0	4 0	30 0	.	..	4 0	4 0	3 0	.	.	0 8	33	.	33 0	
2	Lal	.	14 12	..	14 12	117 4	117 4	.	117 4	..	152 12	23 0	155 12	65 0	65 0	67 12	67 5	284	67 12	216 4	

APPENDIX IV (E).

The Gujarat Rules.

The Settlement of Patelki Inams in Gujarat was effected on the lines laid down by the Commissioner, Northern Division, in the following letter :—

(1) I have the honour to report, for the information of Government, the settlement I have made of the emoluments of patels in the Daskroi taluka of the Ahmedabad Collectorate.

(2) Major Wingate's scale has been taken as the basis of the settlement with some modifications and additions which are described below.

(3) Major Wingate's system allows an increase of Rs. 10 over the percentage amount fixed according to his scale. As this increase appeared too large in small villages, I have in the Daskroi Settlement reduced it to Rs. 5 in all villages the revenues of which are under *Rs. 600 per annum.*

(4) [illegible]
under [illegible]
than [illegible]
patel having heavier work to perform, either in consequence of the villages being situated on much frequented high-roads or at a distance from the Mamlatdar's office, or in consequence of their bordering on foreign territory. The fact of a village having a more than ordinarily large population is also a special circumstance to be dealt with in the same manner. This plan is fair, as it secures additional payment for additional responsibilities, instead of remunerating at an equal rate those who have unequal duties to perform.

(5) The patel's remuneration is in cash or in land, or in both, and to equalize the value of these receipts the profits of occupancy of land have been taken into account, the amount so calculated being in no case reckoned at more than a sum equal to the assessment fixed by the survey. Thus, if a patel be in possession of service land assessed at Rs. 25, he is considered as well off as a patel who receives Rs. 50 from the treasury.

(6) Of the amounts thus fixed according to principles above mentioned, portions varying from one-fourth to one-half, according to the circumstances of each case, are to be allowed to the matadars or patels and to co-sharers who assist the patels. But in no case are the matadars' present receipts to be exceeded at the expense of the patels

(7) If in any case the present emoluments of the patel exceed the amount fixed as above described, so much of the cash receipts as equals the excess is reduced, or if there be no cash, a portion of the land of the same amount is assessed. This reduction is made from the

mukhi portion of a patel's holding, which, as having been granted by the British Government for the performance of police duties, can, without objection from anyone, be increased or decreased as may be deemed proper. In cases where the existing emoluments are less than the scale, the deficiency is made up in cash.

(6) I have also, with reference to my communication noted in the margin, to report the settlement of the contingent allowance (to be called the *chora kharch*) to be given to patels in lieu of, and out of the savings from, the *malviro* payments abolished. This contingent allowance has, as a rule, been fixed at double the amount given to Talatis for stationery under Wingate's scale, but in villages of the kind referred to in paragraph 4, it has been fixed at three times the Talati's allowance.

No. 1525-A., dated the 3rd May 1864.

(Extract from Commissioner, Northern Division's No. 3432-B., dated 29th October 1864—*vide* Government Resolution No. 4646, dated 23rd November 1864.)

APPENDIX IV (F).

The Thana and Kolaba Rules.

The general scale for the settlement of patel and mahar inams in the Thana and Kolaba districts is as follows :—

Patels.

(1) Percentage Scale—

(i) For the first thousand of revenue .. 3 per cent.
(ii) Do. second do. .. 2 per cent.
(iii) Do. third do. .. 1 per cent.

(2) [illegible]

[illegible] tion exceeds 100 but [illegible] 250, 2 per cent. on the revenue was allowed as *potgi*.

For villages of which the population exceeds 100 but does not exceed 350 .. .. .. Rs. 5
For villages of which the population is between 351 and 700 .. .. Rs. 7½
For villages of which the population is between 701 and 2,000 .. .. Rs. 10
In villages containing upwards of 2,000 inhabitants.. Rs 20

Mahars (Karbharies and Naikwadis)

(1) Percentage Scale—

1½ per cent. on first 2,000 rupees and 1 per cent. on the balance of the gross revenue beyond Rs 2,000. (R. 60-A of 17th May 1926.)

A minimum allowance of Rs. 6 for villages containing upwards of 150 inhabitants and Rs. 3 for villages with a smaller number of inhabitants.

Note.—In cases where the Mahars would get a higher allowance than the patels if they were to be allowed the difference between the scale payment and the minimum allowances [illegible] in the revenue [illegible]).

(i) Karjat (old Nasrapur) taluka—

Patels.

(a) Scale remuneration—as above.
(b) Potgi—

For villages where the population does not exceed 350 inhabitants .. .. .. Rs. 5
For villages where it exceeds 350 but is under 700 Rs. 7½
A minimum of Rs. 10 has been fixed for patel's salary.

Mahars.

Rs. $1\frac{1}{2}$ per cent. on revenue of villages.

A minimum allowance of Rs. 6 for villages containing upwards of 150 inhabitants and Rs. 3 for villages with a smaller number of inhabitants.

(ii) Panvel taluka—

Patels.

Scale remuneration and *potgi* as in Karjat.

Mahars.

Instead of $1\frac{1}{2}$ per cent. on revenue as in Nasrapur, that rate was given only on the first thousand rupees of revenue and 1 per cent on the remainder.

2. Thana district—

Bassein }
Murbad }

Patels holding service *inam* land were called upon to pay half its assessment as *judi*, the other half being left to the *vatan*.

APPENDIX IV (G).

THE RATNAGIRI RULES.

The Ratnagiri scale of remuneration is the following :—

In villages with inhabitants—

	Police patels.	Mahars
	Rs.	Rs.
From 11 to 100	4	2
„ 101 to 300	6	3
„ 301 to 600	12	6
„ 601 to 800	16	8
„ 801 to 1,000	20	10
Above 1,000	24	12

At large bandars or halting places on roads a fixed allowance of Rs. 20 was allowed in addition to the above scale and at smaller places of the same description Rs 10 (Government Resolution No. 849 of 2nd March 1869).

In *khoti* villages comprising *dhara* lands, the khots were remunerated for the collection of the revenue of *dhara* lands according to the following scale sanctioned by Government Resolution No. 1631, dated 4th April 1871 :—

Scale—

On first 500 Rs. of assessment	.. 5	per cent.
On second do.	.. 4	do.
On third do.	.. 3	do.
On fourth do.	.. 2	do.
Above 2,000 do.	.. 1	do.

The practice of paying the khots for the collection of revenue of *dhara* lands according to the above scale has been put a stop to under Government Resolution No. 3077, dated 26th April 1889.

APPENDIX IV (H).

THE KANARA RULES.

The Kanara scale of remuneration is the following :—

In villages the revenues of which are under Rs 100 a fixed allowance of Rs. 5 is to be granted

When the revenue is

between Rs	100 and 200	Rs. 4
do	200 and 300	Rs. 3
do.	300 and 400	Rs 2
do.	400 and 500	Re. 1

The allowance of Rs. 5 fixed for patel in villages the revenue of which are under Rs. 100 is to be in addition to the percentage on revenue.

The villages of which the revenue is between Rs. 100 and 500, there is to be allowed a percentage* of 3 per cent in addition to the fixed allowance and in those with revenue exceeding the latter amount, the percentage alone without any fixed allowance The Commissioner, Southern Division, has been given the same power to sanction special allowances to the patels in the Kanara District as the Commissioner exercises under Nos. 6 and 14 (A) of the rules for the valuation of the emoluments of patels and kulkarnis in the Collectorates of the Deccan and Southern Mahratta Country printed at pages 66-67 above. (F-5672-19.)

*The same as Wingate's

APPENDIX V.

Extension of the Bombay System of Settlement to Alienated Villages.

Owing to the obvious superiority of the Bombay system of Survey and Settlement to that which usually obtains in alienated villages and the facilities afforded by its introduction for obtaining accurate statistics the extension of the Bombay system to these villages has always been regarded by Government as an object to be attained wherever possible. No pressure, however, has ever been brought to bear upon the holders of such villages, and by section 216, Land Revenue Code, it is provided that the provisions of Chapters VIII to X of the Code shall not be applied to any alienated village, except for the purpose of fixing the boundarie[s] of any such village, and in the special cases of

(a) all unalienated lands situated within the limits of such village

(b) villages of which a definite share is alienated, but of which th[e] remaining share is unalienated, such as *sarakati* villages;

(c) alienated villages the holders of which are entitled to a certain amount of the revenue, but of which the excess, if any, above such amount belongs to Government.

By the last paragraph of this section, however, it is provided that, on application being made in writing by the holder of any such village, the provisions of the whole or any part of these chapters may be extended thereto Further, by section 88 the extension of the Survey Settlement is made a condition precedent to a grant of powers under that section to the holder of such a village allowing him to demand security for land revenue, to attach defaulters' property, etc

The terms upon which a settlement is introduced into an alienated village and the rights secured to and the obligations imposed upon the holder thereby are as follows .—

(1) *Preliminary conditions.*

(a) An application for the extension must be made in writing to the Divisional Commissioner.*

(b) If there are ma[illegible]
must [illegible]
power [illegible]

(c) [illegible]
Land [illegible]
Gover[illegible] [illegible] and to pay them [illegible] the village officers at the collection of local cess such remuneration to be a first charge upon the village revenue—and to furnish such revenue and vital statistics from time to time as may be required by the Collector §

* Section 216, Land Revenue Code.

† Government Resolution, No. 3346 of 7th May 1889.

‡ Gopikabai *vs.* Laxman, B L. R. Vol. II, p. 235.

§ Government Resolution, No. 6401 of 6th December 1880 and No. 7322 of 3rd December 1880.

(d) The applicant has further to agree to allow remissions and suspensions of land revenue to his own rayats on the same scale as that fixed in Government villages in similar circumstances.*

(2) *Issue of notification.*

When the holder has satisfied the necessary conditions a notification extending such provisions of Chapters VIII and IX of the Code, as may be deemed requisite, is issued by the Commissioner

(3) *Settlement operations.*

(a) The measurement and classification operations in the village are carried out by the Survey party under the control of the Superintendent, Land Records.

(b) The rates of assessment also are usually settled by the same officer, and are ordinarily the same as those sanctioned for the adjoining Government villages, in which case sanction for their introduction is granted by Government. Sometimes, however, the application of the Government scale of rates might result in a loss of revenue to the inamdar owing to the fact that the former assessments were on a higher scale In such cases it has been ordered that "When ... alienated ... Survey ... addition to them in any particular case, but the Survey Department should not introduce rates which produce a revenue equal to the inamdar's dem ... without fully ... with- out ... n."†

When an Inamdar holds several villages and it is desired to maintain approximately his "Mamul" revenue, losses in one village can be set off against gains in another to make the settlement reasonably parallel to surrounding "khalsa" settlements (R. 7367-17).

2. In comparing "Mamul" recoveries with new assessments the assessment of (1) Jadid Inam (2) Sheri Lands (occupied by Inamdar in person) cannot be exc ... side of the calculation. ... "Mamul" realizations;

(c) In submitting his proposals the Settlement Officer is not required to give full details as he would in the case of a taluka, but has merely to give his reasons for the adoption of the particular rates proposed ‡

(4) *Duration of the Settlement.*

The settlement guarantee is usually fixed so as to expire at the same time as that of the Government villages in the same taluka.

* Government Resolution, No. 6984 of 16th July 1907.

† Government Resolution, No. 3436 of 12th May 1886.

‡ Government Resolution, No. 6291 of 16th November 1878.

(5) *Introduction of the Settlement.*

The formalities of introduction are the same as for Government villages. In the Settlement report it should invariably be reported whether procedure prescribed in Government Resolution No. 8914 of 14th September 1916 was adopted. Such petitions of objection as may be received in consequence of the local publication of the notification should be forwarded to Government, with the remarks of the officers concerned, along with the settlement report—G. R No. 5473/24, dated 3rd February 1927.

(6) *Rights of tenants.*

Previous to the amendment of the Land Revenue Code by Act IV of 1913 the effect of the introduction of a survey settlement into an alienated village was that the "holder" of land therein—a term which included "tenants"—under the provisions of section 217 obtained all the rights of "occupants" in unalienated villages, including that of freedom from enhancement of assessment during the period of guarantee under section 106 * This view was upheld by the High Court in Appeal No. 186 of 1905—Patel Nanabhai Bajibhai *v* The Collector of Kaira and others† and the right still subsists in the case of those settlements introduced previous to the amendment of the Act

But under section 217 of the Code as amended by Act IV of 1913 the "holders" of lands in alienated villages into which a survey settlement has been introduced obtain merely the rights of 'holders" in unalienated villages. *i.e.*, they are subjected to the provisions of Chapter VII of the Code and to the few other sections which refer to "holders" only e g, sections 50, 56, 122, 123, etc None of these sections confer any definite status upon "tenants" in alienated villages such as was given by section 217 of the unamended Act, and the introduction of a survey settlement into an alienated village now makes no difference in the legal relations between the tenants and the landlord. The question of what those relations may be is one of fact, to be decided, if necessity arises, under the provisions of section 83 of the Code for the settlement of disputes between landlord and tenant as to their legal rights.‡

(7) *Responsibility for cost of the operations.*

In cases where the inamdar accepts the rates proposed, the cost of the whole operations will be paid by Government, but if he declines to adhere to the terms of settlement, then the cost is to be recovered from him.§

(8) *Revision Settlements.*

(*a*) When an agreement in the form of Appendix XV has been signed by the inamdar, then as Chapter VIII of the Land Revenue

---

* [illegible]

[illegible] 1851, No 3479 of 29th De[illegible]

Code has been made applicable the Revision Settlement can be introduced by the orders of Government without consulting the inamdar, and also if the agreement is not in the exact form of Appendix XV but Chapter VIII has been extended to the village in question.

Since the passing of Act V of 1879, until Revision Survey is introduced the sanctioned rates remain in force (R. 1327–12)

(*b*) It sometimes happens, however, that the agreement was taken previous to the passing of the Land Revenue Code, and, therefore, under the provisions of section 49 of the Survey Act of 1865. In such a case it will depend upon the particular section of that Act which were applied in the notification extending the provisions of the Act to the village If section 30 was applied, then after expiry of the guarantee, the same rates remain in force until a Revision Survey is introduced (R. 1327–12) and the revised settlement can be introduced by Government without consulting the inamdar (R. 8290–12). But if not, then, on the expiration of the period of guarantee, matters revert to the *status quo* and the inamdar must be consulted before the Revision Settlement can be introduced. In such cases it would save trouble if the inamdar were asked to enter upon a fresh agreement in the proper form in order to save the necessity for periodical consultations

The cost of the survey of Political Inam villages and Native States is to be borne by the saranjamdars and States (P. 2897–91).

APPENDIX VI.

Appendices to the Settlement Report

The appendices are 14 in number and lettered from A to N. The lettering was changed in 1916 when several of the old appendices were abolished. In order therefore to facilitate reference to previous reports the list of old with the corresponding new appendices is given below:—

Table showing the old and the corresponding new Appendices

Old Appendix	Corresponding new Appendix	Remarks
A	A	
B	B	
C	.	Abolished by G. R 5313-16, R. D. But the general appraisement of the magnitude and importance of each known bazar should be shown in the body of the Report, bazars being indicated on the map.
D	C	
E		(Statement showing detail of population according to Religion and Education). Abolished by R 5313-16
F	D	
G		Abolished by R. 1000-16 The population and the average birth and death rates for the last ten years should be given in the body of the Report. The figures may be obtained from the Mamlatdar from T F XXI
G-1	E	
H		Abolished by R 5313-16 The general state of [illegible] and popularity of [illegible]
I		(Statement showing the proportion of Government occupied and inam lands cultivated by occupants and sub tenants). Abolished by R. 1000-16
J	F	Abolished (R 706-19)
K	G	
L	..	(Statement showing mortgages) Abolished by R 1000-16.
M	H	
N	I	
O	J	
O-2	K	
Q	L	
Q-1	M	
R	N	

These forms of appendices are standardized (R. 13648-17) and printed and stocked at the Yerarda Press.

APPENDIX A.

(OLD APP. A.)

Rainfall recorded at *District* *for the years*

Year	Early rain (1st January to 10th April)		Ante monsoon (11th April to 4th June)		Monsoon Kharif (5th June to 14th August)		Monsoon Rabi (15th August to 21st October)		Late rains (22nd October to 31st December)		Total		Remarks
	Fall	Rainy days	Fall	Rainy days	Fall	Rainy days	Fall	Rainy days	Fall	Rainy days	Fall	Rainy days	
	Inches	No.	Inches	No	Inches	No.	Inches	No	Inches	No.	Inches	No	
Average ..													

This form is similar to the one given on page 18 of the Bombay Statistical Atlas. The headings of the several columns explain themselves. The information required should be obtained from the office of the Director of Agriculture rather than from Mámlatdárs, both to save time and to ensure accuracy.

2. The figures should be shown for the last 11 years, or much better the whole settlement period if the 11 years are abnormal, a total made and average struck. Averages should not be worked out without regard to abnormal variations. It is most important that the character of the rainfall as well as its amount should be exhibited as clearly as possible.

APPENDIX B.

(Old App. B.)

Details of cultivation and crops in the villages of the Taluka of the Collectorate

Cultivated and uncultivated area											Crops. (N.B.—All heads are optional.)																											
								Not available for cultivation			I cereals and II pulses										Oil seeds							Sugars		Fibres		Drugs and Narcotics						
No. of Villages	Gross cropped area	Deduct twice cropped	Deduct crops in unassessed land	Nett assessed cropped area	Fallows	Total area occupied for cultivation	Cultivable waste (unoccupied) assessed and unassessed	Forest	Other (including unculturable)	Gross area	Rice	Wheat	Barley	Juwar	Bajri	Ragi	Maize	Gram	Other cereals and pulses	Total	Linseed	Til	Rape and Mustard	Groundnut	Others	Total	Condiments and spices	Cane	Palm trees	Cotton	Others	Dyes	Tobacco	Others	Total	Fodder	Fruits and Vegetables including root crops	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39

The groups should be shown across the columns. It is not necessary that alienated villages should be included, nor is it necessary that the information should be given for exactly the villages under settlement, though this should be done if practicable.

2. The information by villages and groups is directly derivable from T. F. XX—Anderson's Rev. Accounts Manual—and should be obtained from the Taluka Office. Details for 5 years should be obtained but only the average under each column and the percentage of each crop on cultivated area should be shown in this appendix.

3. The details of irrigated area with crops may be given and commented on in the body of the Report.

APPENDIX C.

(OLD APP. D)

Details of population according to occupation

Agricultural population				N. A population
Having interest in land		Labourers	Total	
Tenants and sub-sharers	Other land-holders			
1	2	3	4	5

The information should be obtained from the Director of Agriculture.

Note—It is not necessary to submit this appendix with Settlement Reports. The information should be given in the text of the Settlement Report. Printed forms of this appendix are therefore not kept in stock at the Press.

APPENDIX D

(OLD APP. F)

Agricultural stock of the Government Villages in the Taluka of the Collectorate during the year 19

Number of Villages.	CATTLE											Horses and ponies	Sheep	Goats	PLOUGH		CARTS		Cropped land per pair of plough cattle
	For plough		For breeding		For other purposes		Milch Cattle		Young Stock		Total				Small	Large (i e, of over 2 cattle)	For passengers	For produce and goods	
	Oxen	He-buffaloes	Bulls	Bull-buffaloes	Oxen	He-buffaloes	Cows	She-buffaloes	Calves	Buffalo Calves									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

This form is similar to that given in the Statistical Atlas (*vide* statement on page 60—Thana Summary—columns 60 to 78) The details required should be obtained from the Mamlatdar (Tal. Form XXII).

2. Where groups have remained more or less unchanged, group totals are desirable, but when grouping has changed considerably then the Taluka total, for it is impossible to compare by groups. If Taluka or Mahal limits have changed, the figures must be adjusted to make the comparison exact as to totals

(OLD APP. G.)

Shops, industries, etc., in the Villages of the Taluka District.

		Hand industries							Mechanical power				
	Liquor shops	Oil presses	Cotton looms	Woollen looms	Silk looms	Gins			Gins	Rice-husking machine	Cotton presses		

Figures for this appendix may be obtained from the Mamlatdar.

APPENDIX

(OLD APP.

Wells, Bhudkis, Tanks and the other sources
of the Taluka of

Group	Number of villages	WELLS, BHUDKIS AND THE LIKE								For irrigation	
		For irrigation		For drinking supply of human beings but not for irrigation		For cattle and washing and other purposes, but not for irrigation or drinking supply of human beings		In disuse			
		Pakka	Kacha	Pakka	Kacha	Pakka	Kacha	Fallen in or in disrepair	Other causes	Pakka	Kacha
1	2	3	4	5	6	7	8	9	10	11	12

Where groups have remained more or less unchanged, group totals are desirable: but compare by groups. If Taluka or Mahal limits have changed, the figures must be

F.

J.)

of Water-supply in the *Government Villages*
Collectorate for the years 19

Tanks						Other sources								
For drinking supply of human beings solely		For cattle and washing and other purposes, but not for irrigation or drinking supply of human beings		In disuse		For irrigation		For drinking supply of human beings solely		For cattle and washing and other purposes, but not for irrigation or drinking supply of human beings		In disuse		
Pakka	Kacha	Pakka	Kacha	Fallen in or in disrepair	Other causes	Pakka	Kacha	Pakka	Kacha	Pakka	Kacha	Fallen in or in disrepair	Other causes	Remarks
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

when grouping has changed considerably then the Taluka total, for it is impossible to adjusted to make the comparison exact as to totals.

Abstract of Appendix F.

District	Details	Wells, Bhudkis and the like		Tanks		Other sources	
		Pakka	Kacha	Pakka	Kacha	Pakka	Kacha
1	2	3	4	5	6	7	8
	For irrigation ..						
	For drinking supply of human beings, but not for irrigation.						
	For cattle and washing and other purposes, etc.						
	In disuse ..						
	Total ..						
	Totals recorded at the previous Settlements						

The return is similar in form to the Tal. Form XXIII.—Anderson's Manual The information should be obtained from the Mamlatdar and an abstract prepared as above. If Taluka or Mahal limits have changed, the figures must be adjusted to make the comparison exact as to totals.

APPENDIX G.

(Old App. K.)

Selling value of dry-crop lands in the Villages of the Taluka District.*

Serial Number in Appendix L.	Name of village	Area of land sold.	Assessment.	Sale price	Number of times the assessment represented by the price	Remarks.
	Group I.					
	Averages per acre					
	Group II.					
	Averages per acre ..					
	Group III.					
	Averages per acre ..					

* If it is desirable to give similar information regarding rice and garden lands, the appendices may be marked G_1, G_2 and so on.

APPENDIX H.

(Old App. M.)

Leases of dry-crop lands in the Villages of the* *Taluka* *District.*

Serial Number in Appendix L.	Name of village.	Area of land leased.	Assessment.	Rents.	Percentage of rent represented by the assessment.	Indices.	Remarks.
	Group I.						
	Averages per acre ..						
	Group II.						
	Averages per acre ..						
	Group III.						
	Averages per acre ..						

*If it is desirable to give similar information regarding rice, garden, etc. lands the appendices should be marked H_1, H_2 and so on.

Note.—Settlement Officers, if they wish, may express the relation of the rent to the assessment as so many multiples of the assessment, in which case the heading to column 6 must be altered accordingly. Multiples should be taken to two places of decimals (Settlement Commissioner's Circular No. 332-SS., dated 29th April 1915)

2. If the tenant pays rent and assessment separately, they must be added to get the "rent" required. If he pays assessment only, then the assessment is 100 per cent. of the rent and rent is 1 multiple of assessment.

3. For a description of these indices, see paragraph 14 of page 122 (Part II) (R. 6958 and 6959-19).

APPENDIX I.

(Old App. N.)

Prices prevalent in the *Taluka from* *to*

Years.	Seers of 80 tolas per Rupee.						
1	2	3	4	5	6	7	8

The details requir[illegible] for this form sh[illegible] be obtain[illegible] from the Director of A[illegible] as far as poss[illegible] locally obtain[illegible] be such as co[illegible]

2. The prices should be quoted in seers per rupee invariably, the "seer" being taken as equivalent to 80 tolas. (Paragraph 2 of Survey Commissioners letter No. A.—1700 of 23rd June 1899, printed in Government Resolution No. 7110 of 7th October 1899, R. D.)

3. Prices should be given for each year of the settlement lease and also for some years before the settlement. The averages for the pre-settlement period and for each decade of the settlement lease should be separately shown.

4. A Graph sho[illegible] other [illegible] and su[illegible] tion st[illegible] not co[illegible] Report.

APPENDIX J.

Appendix J abolished. (*Vide* R. 706–19.)

APPENDIX K.

(Old App. O_2)

Collection of assessment on Government land in the villages of the Taluka of

Year.	Demand.	Remissions	Outstandings.	
			Authorised.	Unauthorised.
1	2	3	4	5

Note—

(1) This appendix will be prepared for the whole period of the expiring settlement, figures being given by new Groups of villages or where necessary by Sub-groups as explained in paragraph (2).

(2) Where a new group is composed entirely of villages comprised in an old Group then the figures will be given in lump for the whole area, *e.g.*,

'New Group I (17 villages): Max. rate Rs. 3-4-0
(Old Group I Max. rate Rs. 3-0-0)

When, however, a new Group is composed of fractions of old Groups it will be necessary to give separate figures in lump for the villages comprised within the old groups, e.g.

New Group II (22 villages) Max. rate Rs 2.

(a) Old Group I (6 villages) Max. rate Rs 2-4 0.,

(Here follow figures for the whole period of the expiring settlement.)

(b) Old Group II (16 villages). Max rate Rs. 2-0 0.

(Here follow figures as above.)

(3) By 'demand' in column 2 is meant the fixed Khalsa Land Revenue demand, exclusive of all Judi and Non agricultural demands and all Miscellaneous. The Land Revenue demand should include Local Fund after 1915-16 (as remissions and arrears also are shown as consolidated Land Revenue).

The figures will be derived from the following sources :—

Previous to 1915-16—column 27 of old T. F. 27	With added	1/16
1915-16 and after, column 8a of T. F. VIII-B		
As regards Talukadari lands, columns—7+8a+8b of T. F. VIII-B.		

(4) 'Re[illegible] are to be shown [illegible] Part [illegible] Year [illegible] Th[illegible] XXI [illegible] can [illegible] for t[illegible] Ther[illegible] land [illegible] infor[illegible]

(5) The figures in columns 4 and 5 have no arithmetical connection with those of the other columns as they necessarily include Judi, Non agricultural assessments, and Miscellaneous Land Revenue. Moreover, they will also include items of several years past. The object of compiling them is to test the pressure of the assessment by studying the annual aggregate of outstandings in lump.

The figures can be obtained from the following forms :—

Previous to 1915-16 { Col. 4 ....T. F. XXIX—Col. 19.
{ Col. 5 ....Do. .. 43

1915-16 and after.......................T. F. No. VII.

As regards columns 4 and 5 the distinction between 'suspended, and 'unsuspended' scarcely appears in the accounts earlier than 1910 and cannot be found in (old) T. F. XXIX prior to 1912-13.

APPENDIX

(Old App.

Effect of Revision Settlement proposals and

Number.	Name of village.	Number of Group.	Maximum Rates.			Dry crop			Rice.			Garden			Total.		
			Dry crop.	Rice.	Garden	Area.	Assessment.	Average.	Area.	Assessment.	Average	Area	Assessment.	Average.	Area.	Assessment.	Average
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

(All columns above fall under the spanning heading: BY FORMER SETTLEMENT.)

L.

Q).

..n Government occupied Land.

By Revision Settlement.															Percentage increase or decrease	Name of village	Number.
Maximum rates.			Dry crop.			Rice.			Garden.			Total.					
Dry crop	Rice.	Garden.	Area.	Assessment.	Average	Area	Assessment.	Average	Area	Assessment.	Average	Area	Assessment	Av			
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36

Summary for dry crop rates.

Proposed group	Number of villages (in batches according to existing grouping).	Current dry crop rate of each batch	Proposed dry crop rate for group of each batch.	Increase per cent.	Increase per rupee (to nearest quarter anna).

R.—1601-16

Instructions for filling in Settlement Officer's Appendix L.

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1. It is to be noted in the first place that the statistics contained in this appendix refer to all assessed lands including Inam and Government Waste.

2. Columns 1 and 2 and 35 and 36 should be arranged according to the new grouping proposed by the Settlement Officer, the old grouping being shown in column 3. Columns 4 to 18 should give the figures for the last year of the expiring settlement for which they are available.

3. Columns 19 to 21 should show the proposed maximum rates. The area figures in columns 22, 25, 28 and 31 under revision settlement should be the same as in columns 7, 10, 13 and 16 under former survey. The assessments in columns 23, 26 and 29 should be worked out by rule of three, in accordance with the method approved in Government Resolution No. 10380, dated 27th October 1909, Revenue Department, by increasing or decreasing the old assessments in the same ratio as the new maximum rate bears to the old maximum rate.

4. All the figures required for filling up the columns under former settlement should be obtained from the Mamlatdar.

5 On both sides of the statement the area and assessment of Motasthal and Patasthal land should be shown separately in a large bracket one below the other, if the two kinds exist in the same village; and the soil and water shares of assessment should be shown separately in the assessment columns for patasthal lands. The following symbols should be used —

M—Motasthal.
P—Patasthal.
S—Soil.
W—Water.

When there are lands of other kinds such as "Bhata", "Dhekudiat" etc., they should be similarly distinguished.

In talukas in which patasthal assessment has been abolished there will be no patasthal garden. Also, since what was formerly patasthal rice or garden has now become dry crop, there will be an increase in the dry crop area of some villages and a decrease in the bagayat or rice or both.

6. Fractions of acres below and including 20 gunthas and of rupees below and including 8 annas should be left out of account and those above them should be counted as a complete acre and a complete rupee, respectively.

7. Averages may be worked out in rupees, annas and pies (or in rupees and decimals up to two places as the Assistant Settlement Officer thinks fit) on the totals for each group and the Taluka When there has been re-grouping [illegible] of an [illegible] group. [illegible] res the averages to illustrate his report, work them out for any single village.

8. In finding out the percentage increase of the group or of the taluka the water share of the patasthal garden assessment should be left out of consideration.

9. The percentage increase or decrease to be shown in column 34 should be filled in in all cases, where there has occurred an increase or decrease, calculations should be made to two decimal places, and the increase or decrease should be prefixed by the sign (+) *plus* or (—) *minus*.

10 The information should be given for each village separately.

11. A total should be struck under each group, grand total being at the end.

A Revised Appendix L will be prepared after the maximum rates have been finally sanctioned by Government by the District Survey Office concerned under orders of the Superintendent. This appendix will be prepared on the same lines as the Settlement Officer's appendix except that the entries in columns 1 and 2 will be arranged according to the grouping approved by Government, column 3 will show the group of the village according to the former settlement and columns 19, 20 and 21 will show the new maximum rates sanctioned by Government on the basis of which the assessments under Revision Settlement will be worked out.

APPENDIX M.

Showing village, population and area of unoccupied assessed cultivable Government land.

Serial Number in Appendix L	Village.	Population			Area of unoccupied assessed cultivable Government land						Remarks.
1	2	3	4	5	6	7	8	9	10	11	12
	(By new groups and portions of old groups setting out the old groups or portions thereof of which the new group is formed										

1. Figures for columns 3 to 5 should be otained from Census Report.

2. Columns 6 to 11 should be filled in from 8 of T. F. VIII-A. Usually figures for every 5 year should be given in these columns. But where for any group or sub-group, there has been no appreciable change in the occupied cultivable area, no figures need be given for intermediate period but only for the beginning and end of settlement period or such other years as the Assistant Settlement Officer may select.

3. The area of unoccupied land afforested or transferred to purposes unconnected with cultivation should be entered in the remarks column.

APPENDIX N.

(Old App. R.)

This appendix contains the original settlement correspondence relating to the previous settlement of the taluka or, if these papers have already been printed in a selection, then a reference to where they may be found. The orders on the subject are "If the papers regarding the expiring settlement of a taluka or any part thereof are *not* printed as a selection, copies of such papers should always accompany the copy of the Settlement Officer's report, that is sent to the Settlement Commissioner to be printed at the Government Central Press. In cases where the papers regarding the expiring settlement have already been printed in the form of a selection, mention of such selection or selections should invariably be made in this appendix." (Government Resolution No 4233 of 22nd June 1891, R. D.)

APPENDIX VII (A).

Memorandum on the Rating of Patasthal Patraks by Mr. Fletcher.

1. The rates in the *jantri* must be modified to meet the cases of water-supply which fall between the exact periods for which the rates are given.

E. g, a *pat* stated to last till end of February should take a rate of *half-way* between 3rd and 4th water class. I say *half-way* advisedly, for such modifications should always lean towards liberality.

In rating numbers whose classification rate falls between the rates given,

(1) below 8 annas, take the lower rate,

(2) above 8 annas and below 12 annas, the upper,

(3) above 12 annas, take a medium rate.

E g., if the classification annas of a number are—

	a.	p.		a	p	
	6	7	take the rate for	6	0	
if	10	3	do.	11	0	
if	12	6	do.	13	0	*i e.*, *half-way* between 12 and 14 annas.

2 If a *pat* is stated to flow of itself till say the end of January and afterwards by *sup* till end of April, the *sup* raising the water not more than 3 feet, rate as for 3rd class water. If the lift be not more than 6 feet, rate for water class half-way between 4th and 3rd. If lift be more than 6 feet, rate as for 4th water class merely

N B—This is given merely as a guide to the way in which such disadvantage as *sups* should be allowed for, but the matter is one of those which the rating officer must treat at his discretion after reading and considering all the circumstances of each case.

Water is sometimes conveyed across a *nalla* by means of *lacha* aqueduct (a hollowed out tree, etc) which generally wastes much, as well as being very liable to be knocked down, etc. This is a disadvantage to be allowed for in the same way as a *sup* to such extent as the rating officer may see fit

3. *Area.*—(*a*) The area actually irrigated in the year of classification is what should, by the classer, be entered as "*salosal*" area, and any area additional to this which it is customary to irrigate from the *pat* in other years is what should be entered as "*pherpali*". The "*salosal*" area + ⅓ of the "*pherpali*" is what is usually taken to be fixed and rated as *patasthal*, by the rating officer. But as the classers do not always show *salosal* and *pherpali* uniformly and satisfactorily the rating officer has often to alter the classer's entry and fix the area to be rated at his discretion.

(b) In every case before beginning to rate a *pat* he should read all the information recorded about it by the Assistant, look at the total area [illegible] f the *pat*, look through [illegible] ops are mostly grown [illegible] capacity of one *mot* may be assessed to water from 1½ to 3 acres in 24 hours, the amount differing with the head of water, *i e.*, its velocity, and the kind of crop watered, for it takes much longer to water crops like sugarcane which have the land divided into small squares than crops like earthnut, etc., where the squares are much larger.

(c) In forming judgment as to what area may be safely rated as *patasthal* under a *pat*, the period to which the *pat* flows and the nature of the crops grown will be a guide as to the interval which should be assumed as falling between each watering, *e.g.*, a *pat* flowing to the end of January will be used for groundnuts, chillies, and probably for *jowari*, *bajri*, etc , and a 20-day interval would be suitable for such a *pat*, and if it had a two-*mot* stream it would be safe probably to assess up to 60 or 70 acres under it as *patasthal*. The distance which the water has to travel, however, has to be considered ; also the number of days if any fixed as the *pali*, *e g* , if for sucl [illegible] it would be right to assume a 15- [illegible] only 8 or 10 days, a 15-day or [illegible] In *pats* which flow till end of April or May the *pali* is seldom more than 8 or 10 days, and whether it be more or less an interval of 8 days is what should usually be assumed.

(d) The above considerations are for guidance when the large total area entered under a *pat* warns the rating officer to assure himself that the water-supply is sufficient for the whole, or if it is not to reduce the area. If he decides that so many acres reduction is necessary on the total he will in doing the rating select the numbers over which to distribute the reduction by seeing which have against them very large areas in proportion to their "*pali*" or against which are entered large areas of inferior crops (such as *bajri*, *jowari*, etc., which are usually unirrigated). Numbers against which areas of 1 acre or less are entered as irrigated should not as a rule be made subject to reduction.

(e) Even if the total area entered by the classer under a *bandhara* be not excessive, it is necessary to take care that the area against individual numbers is not excessive in proportion to the *pali* of the number and make a reduction if necessary. Large areas, such as 3, 5 or more acres of *bajri*, *jowari*, etc., should be accepted with caution, especially if the *pat* is one that flows late, and is, therefore, rated high.

(f) Areas entered as "*dharmarth*" or "*hak nahi*, *magun ghetle*" should [illegible]

(g) Areas must be reduced if the *pali* cannot be made annually, *e.g.*, if only made two years out of three the area may be reduced by ⅓ of such

reduction; however, if this should bring the area down to less than 1 acre it will be better to meet the case by some reduction in the rate also.

4. Finally it is to be borne in mind that the discretion allowed to the rating officer is great. The above notes illustrate some of the ways in which he should use his discretion, but it is impossible to lay down hard-and-fast rules for his guidance.

(Sd.) W. M. FLETCHER,
Superintendent, D. R. Survey.

29th April 1891.

To

Mr. F. B. Young,
Assistant Superintendent.

APPENDIX VII (B).

MEMORANDUM ON THE PREPARATION OF TABLES FOR PATASTHAL ASSESSMENT BY COL. ANDERSON.

1. One set of combined soil and water rates throughout under all classes of water without reference to the dry-crop maximum rate, it is plain, would not do; the amount of assessment due to water would vary excessively in the lower water classes, according as the dry-crop maximum was high or low

2. Under the upper water classes the combined rate may be pretty constant; water there is the chief factor of value. The reverse is the case in the lower and especially in the lowest water classes.

3. A table for Rs. 8 maximum dry-crop *patasthal* is now forwarded in which the upper classes are shewn in black ink and give a combined soil and water rate, while the lower classes are shewn in block figures, these block figures indicating the approximate addition to be made to the simple dry-crop rate of the soil classification to give the combined rate. This combined rate would be suitable for plain districts generally, but for districts of heavy and certain rainfall, having a low dry-crop maximum, the water values of 6th class might be increased as much as 10 or 15 per cent. and 5th class by 5 to 10 per cent. and so on, running by fair gradation by 4th class water into 3rd, which as a rule may be looked on as a pretty constant, combined rate The reason for this is that the *pats* of the lower class are much less liable to fluctuation, in duration, from the accidents of the seasons in rainy districts

4. It is not necessary to make different *patasthal* tables for every 2 annas of differing dry-crop maximum, but villages of one taluka with dry rates differing as much as 4 annas would require usually *patasthal* tables differing somewhat in the lower classes.

. . . .

6. It must always be remembered that the object of the Superintendent only fixing the *patasthal* assessment instead of allowing it to be done from the classification entries by karkuns, is to keep this most important work in the Superintendent's own hands as far as possible. The classification entries in the *Bagayat Takta* are, of course, supposed to be correct, but from one cause or another they are not always so throughout, and one entry often serves as a check on the correctness of another. For instance, the crops actually grown will often prove a great check on the months entered for the duration of the *pats*.

7. Before fixing the assessment of a single *patasthal* number the following items of information should be considered :—

1st.—The old *patasthal* area and assessment; a high assessment paid is, to a certain extent, indicative of good *pats* though the contrary may not indicate the opposite.

APPENDIX VII (C).

THE KHANDESH SYSTEM OF PATASTHAL ASSESSMENT.

I.—*Measurement.*

1. The orders on this are, that all *patasthal* lands shall be measured into *pôt* numbers according to occupancy, and that they shall be separately mapped upon a scale of 5 measurer's chains to the inch, subsidiary to the general village map.

2. In Malegaon and Dhulia the subsidiary shares of survey numbers in *patasthal* land have already been ascertained by the "*Hisewar*" measurement. In these talukas one *pôt* number should now be measured in each *patasthal* survey number, and if it is found to correspond to the area given by the "*Hisewar*" measurement (which will be found in the number *karda*) within 2 *gunthas* to the acre, the "*Hisewar*" measurement may be assumed to be correct. If a greater error appears, the measurement of all the *pôts* must be completed, so as to ascertain whether the error was in the "*Hisewar*" measurement or in the original measurement, and, wherever it was, it must be corrected. This is, however, left discretionary with the Assistant Superintendent, who may find it better to have each *pôt* number separately measured.

3. In Baglan and Pimpalner the survey measurements have generally been completed, but the settlement of dry-crop lands not having yet been introduced, no "*Hisewar*" measurement has been made. The *pôt* numbers must now be measured, and no subsequent "*Hisewar*" measurement of these lands will be required. As a rule, the *pôtwar* measurement should be made only of distinct holdings now entered in the village books. But if the measurer now finds in one survey field 2 shares distinctly cultivated by different persons, *one not being the tenant of the other,* though the name of one is not now entered, he should measure 2 *pôt* numbers accordingly, since both persons will probably have to be recorded as occupants at the settlement.

4. It may be sufficient for the measurer, as time is of consequence, to measure 1 *pôt* out of 2, or 2 out of 3, in a survey field, leaving the balance of area for the other *pôt*. But as this gives the measurer room to fudge his work, the Assistant Superintendent is requested to be careful to check this by always testing the *other pôt,* and this also will be left to the discretion of the Assistant Superintendent, who may prefer to order some of his men to measure all the *pôts*.

5. As the sugarcane is now standing, and the chain cannot be dragged across the field, the sides of the *pôt* number should be chained, and a "*dharsod*" allowed, at the discretion of the Assistant Superintendent.

6. A map of the *patasthal* lands of each village, constructed on the scale of 5 chains to the inch, by means of the Pentagraph in the Superintendent's office, will be forwarded as soon as possible. In these maps the *pôt* numbers must then be entered in red ink, numbered survey No 10, *pôt* Nos 1, 2, 3, etc. The existing survey *shej* is not to be interfered with

II.—Classification.

7. To enable the classing Assistants and classers to appreciate properly the object of the instructions now issued, the mode of settlement which it is proposed to adopt for *patasthal* lands must be explained.

8. The area of *patasthal* land having first been ascertained, a fixed assessment will be imposed on each *pôt* number, the amount of which will be regulated—1st according to the nature of the soil, 2nd to that of the water-supply, 3rd to the distance of the field from the source of supply. To effect this, 1st the soil will be divided into 3 classes, *i.e.*, 1st class including the 3 first classes of the survey scale, or 12 (or, when the new valuation scale is in force, 13) annas and upwards; 2nd class the next two classes, or 8 annas inclusive and upwards to 12 (or 13); 3rd class all below the 5th class or 8 annas The water-supply will likewise be divided into three 3 classes, the best water-supply for each village or *bandhara*, irrespective of the relative value of that supply to that of other villages or *bandharas*, being put into the 1st class, as explained below, paragraph 18, and the rates thus found (*i.e.*, reduced from the maximum *patasthal* rate fixed by the Superintendent for the village or *bandhara* according to the class of soil and water of the field) will be reduced according to the distance of the field from the source of supply, for which purpose the distance of each field from the supply must be shewn in ¼ miles (*vide* paragraph 17).

9. The classers must, therefore, prepare a "*Darwari*" in the accompanying form.

10. Rules for filling up column 1 of the "*Darwari*.")

The first thing to be decided is, to what survey numbers *patasthal* rates should be applied. On this it is to be noted that, as a rule, the people of the western district of Khandesh make all the use they can of their water, and it is not, therefore, desired to increase the area of land under *patasthal* assessment. The general rule should, therefore, be to consider as *patasthal*, and enter in column 1 of the "*Darwari*" those fields which are already entered as *patasthal* in the village books. But to this there are exceptions :—

1*st*.—Small patches of land (mostly waste) now asessed at dry-crop rates may be found surrounded by *patasthal* fields. If there is no obstacle to their being irrigated, they should be entered as *patasthal*.

2nd.—Fields (commonly waste) may be found, which, though now entered and rated as *patasthal*, cannot be irrigated, from being on a higher level, from the *bandhara* having been broken, etc. Such lands should be entered as dry-crop, and excluded from column 1. When the classers [illegible]
column 1 al [illegible]
Example.— [illegible]
consists of about 150 *bighas* irrigated by a *pat* on the north side of the *bandhara*, and of about 60 *bighas* which used to be irrigated by a *pat* on the south side. But from shortness of water the 60 *bighas* under the south *pat* have been waste for 15 or 20 years. They should be entered as dry-crop.

3rd.—In some villages the people may wish to extend irrigation to fields now dry-crop. The Assistant Superintendent should specially report such cases, explaining particularly (*a*) whether in his opinion the water-supply is sufficient to allow of the new land being irrigated without injury to the old, (*b*) whether the holders of the old *patasthal* consent that the new land be irrigated.

4th.—Land now entered as *motasthal*, but which has the aid of the *pat*, should now be entered as *patasthal*.

11 (Rules for column 3.) "*Kharab* land" (in which the area occupied by the *pat* is included) to be deducted under the ordinary rules. But *vide* paragraph 14 below.

12. (Column 4.) The *pôt* number will have been framed by the measurer The classer is responsible for their having been correctly framed

13. (Columns 5 and 10.) Land included in a *patasthal* number or *pôt*, but to be entered as dry-crop. This point requires particular attention :—

1st.—Land that is not actually irrigable must be entered as dry crop. The classer is not to enter a piece of dry-crop land as *patasthal* because he thinks that the owner by lowering and levelling it might make it irrigable ; nor is he to exclude a patch of land from *patasthal* merely because the owner does not actually irrigate it.

2nd.—In many villages there are raised banks, or sloping strips, between the plots of irrigation, which, though not actually "*kharab*", are unirrigable, if not unculturable. Where such exceed an average of 2 annas in width, their estimated area must be deducted as dry-crop, and, if necessary, re-classed as such. It will be understood that such a bank between two survey or *pot* numbers not exceeding 4 annas in width, will not be deducted if half belongs to each number.

14. The classers must be careful to deduct the proper amount of land both as dry-crop and as "*kharab*" (under rule for column 2 above) The Superintendent has seen a case in which, out of a *patasthal* field of 2½ acres, in which several stony hillocks had been included by

the measurer, only 15 *gunthas* had been deducted as "*kharab*" instead of 35, the proper amount. This would represent a probable difference of from Rs. 5 to Rs. 8 in the assessment of the field.

15. Mr. Scott's attention is particularly directed to this point in Dhulia, where it is feared that much dry-crop land has been included in *patasthal* survey numbers and that the Revenue authorities have imposed the old *patasthal bigoti* rate (*mamul dar*) upon the whole area so included. The same may be the case in Baglan and Pimpalner in villages in which the "*Zahirnama*" calling on the people to cultivate according to the limits of survey numbers has been published.

16 (Columns 7 and 11.) In villages not yet classified, the classification must, of course, be made *potwar*. In those that have been classified, the present classification may usually stand. It will generally be found that where there are *pot* numbers in a survey field, a "*khashta*" has been made for each *pot* number, and, if so, their original classification may be adopted for each. But included dry-crop land will often have to be re-classed, and particular attention must be paid to a case like this—

N.

W.			E.
	5 1 ..	2 $1\frac{1}{2}$ ..	
	6 $\frac{3}{4}$ ..	3 $1\frac{1}{2}$ ..	

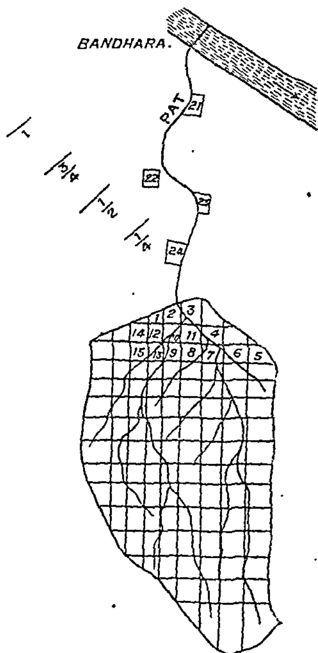
S.

Here the original classification of the entire survey number is 10, which would place it in the 2nd class of *patasthal* soils for assessment. But the two western *hissas* are dry-crop, the two eastern *patasthal*: consequently the dry-crop land must now be classed separately, at annas 7, and the Patasthal at class I of *patasthal* soil.

In the "*Darwari*", the class only of *patasthal* soil (*vide* paragraph 8 above) need be shown, not the anna classification.

If the classer finds any *patasthal* soil, which from the presence of the salt called "*karal*" or any other, will not grow sugar, he must be careful to put it, if its existing classification does not do so, in the 3rd class of *patasthal* soils.

17. (Column 12.) Distance should be reckoned from the point where the *pat* enters the "*thall*" of irrigated lands. *Vide* example below:—



here the point of reckoning distance should be at No. 2, ×, where the *pat* enters the "*thall*", and all the scattered Nos. 21, 22, 23, 24, between that and the *bandhara*, should be put at ½. Such scattered numbers are common on a long *pat*, but as the force of the current is not materially weakened till the *pat* begins to be broken up into the subsidiary channels, the distance should not be reckoned from any of them

which he thinks that this scale should be modified. It is needless to say that where there are two different *bandharas* in the same village, the scale of distance should be reckoned from that which waters the particular field.

18. (Remarks and classification of water-supply.) The classers must be particularly instructed, 1st, that the best water-supply under each *bandhara* is to be put in the 1st class of water-supply, no matter how inferior that supply may be to that from another *bandhara* even in the same village, and that the Superintendent will meet the difference in the rates; secondly, that they must not reduce the class of supply on account of distance from the source, as this also will be allowed for in the rates Consequently, as a rule, all the fields will be put into the 1st class of water-supply, it is only where there is a particular cause of deficiency in the supply that the class should be reduced. The best way will be for the classers to ask the villagers to point out the fields in which they th... it, and these alone he ne... state- ment and of its c... water does not flow freely, especially in the hot weather, that perhaps the *pat* has to be bunded up to raise the water; that consequently the sugar is inferior, and grows less frequently than in other fields, he should put ... is only for the cold weather, ... He should state his reasons ... field book (and in the *Darwari* for the information of the Superintendent), and the Assistant Superintendent should, if possible, satisfy himself of their correctness

19. In some places *bhudkis* are used to lift the water from the *pat* by means of a *mot*. Lands irrigated in this way should be entered as *patasthal*, but the water-supply should be classed as 2nd or 3rd as the case may be, not as 1st

20. In all lands which have the help of a well as well as of the *pat*, the supply to be classed 1st.

21. It will be understood that in the "*Darwari*," fields are to be shewn distinctly according to the class of water-supply, and also that if there are two *bandharas* in the same village, the lands watered by each must be kept distinct in the "*Darwari*".

Miscellaneous Observations.

22. Lands occupied by mango and other trees must be treated exactly as if the trees were not standing, *i.e.*, if without the trees, the land would be entered as *patasthal*, it must be so entered with them, and *vice versa*. After the settlement the rayats will have the Government right in the trees, and may cut them down if they like. The classer must, however, keep a list of the mango trees growing in the number entered in the *patasthal* "*Darwari*", in the accompanying form.

23. Stones will not be entered in the map to mark *pot* numbers, but the holders may put them up if they please.

24 Measurers and classers may work together in the same village at this revision and the classer is to make the measurer useful, as may be found convenient. There is great need of haste.

25. Revision work of this kind does not admit of a regular test, and a careful general supervision and personal examination of all difficulties will also insure accuracy better than one. The test return, therefore, need show only the number of fields and *pot* numbers examined, and the result.

APPENDIX VII (D).

(Supplement compiled by F. G. H. ANDERSON, Esq., M.A., I.C.S.)

SUPPLEMENT TO SURVEY AND SETTLEMENT MANUAL.

[This Supplement was originally written by Mr. F. G. H. Anderson, I.C.S., for his provisional edition of the Land Revenue Rules (1918). it is transferred to this Manual by R. 55-21.]

Whenever an assessment includes Pátasthal or Himayat, the soil and water portions are to be separately shown in village accounts (R. 8869-02).

I.—PATASTHAL.

This Note incorporates a valuable summary by Messrs. E. C. Ozanne (Survey Commissioner and D. L. R. and A.) and W. M. Fletcher (Superintendent of Survey), compiled in 1892-4 upon the abolition of the Survey Department.

Pátasthal is of two kinds (R. 3969-01):—

A.—A *fixed addition* under sec. 101, L. R. C., to the ordinary Land Revenue assessed upon land in respect of the benefit derived from flow irrigation from a Pát, suited to tracts when irrigation is steady and reliable.

Pátasthal is also levied for percolation water (not conveyed by any channel) and sometimes for water raised by lift from temporary budkis and also for inundation water.

B.—An occasional rate from year to year in respect of land actually irrigated, levied under sec. 55, L. R. C., suited to precarious tracts and occasional irrigation.

Rice cultivated annually (not as a rotation crop as in the Khándesh Phads) by Pát irrigation is not treated as Pátasthal but as Tari and classed for water like all other Rice.

Government have laid down the principle that they cannot assess under sec. 101, L. R. C., unless they can guarantee the right to water (R. 1889-62). Therefore holders, who get water not of right but by occasional concession and grace (Dharmarth), are chargeable only under sec. 55, L. R. C.

2. A Pát is a water-course, like a small canal, led off from the upper waters on a stream by building a dam or Bandhára. In Sind a Pát is called a wahi, or jabal. These Bandháras are usually put up by the

cultivators at their own expense; some are permanent, others very transient. The conditions favourable to such enterprise are obvious enough and a frequent cause of failure is the erosion of the bank, or of the stream-bed below the level at which the erection of a dam is feasible (para. 4, R. 3969-04). Such a failure is thus due rather to too much than to too little water; and argues no deficiency in Páts either above or below the failure.

3. In the original Survey and Settlement all existing Páts were assessed with reference to their reliability and volume. A Pát which flowed perennially and was practically never known to fail was placed in the first class, while the others were rated in a decreasing scale according to the length of time they normally flowed each year. Then, of course, the class of the water was multiplied by the class of the soil; as obviously *with the same water facilities good and bad soil will not yield alike*. (This is the chief argument against the Irrigation Department crop-rates.) A most important point in connexion with Pátasthal assessment is emphasised by Mr. W. M Fletcher in his classical Report No. 1027 of 4-8-91 in Selection CCL Herein he points out that water from a Pát often commands several acres of land, but owing to the limitations of the supply, it can only actually be used for watering a limited area, say one acre out of four. This acre might in different years be in different parts of the field. The classer who assessed the Pátasthal rates used to form his own judgment as to the probable average area which could be annually irrigated. If the Pát was precarious, he did not always reduce the class of the Pát, but instead of putting down one acre as irrigable, he put down ½ acre, or even ¼. Therefore, the rate and area assessed in any given Survey Number unfortunately cannot on paper help us to decide whether or not full allowance was made for the precariousness of the supply When we find one acre assessed at the full rate under a Pát which only occasionally flows, the truth may be that, in the years when it does flow, four full acres of good irrigated crop are obtainable. This method makes it impossible to mix the crop rate system of the Irrigation Department with the Pátasthal assessment system of the Revenue Department The latter must be surrendered together with the Settlement guarantee before Canal Irrigation can be given. Soil or dry-crop rates for the best class of land are the same throughout a Group: climate markets, and state of development of the tracts are assessed by variations in the maximum rate between one group and another. In Pátasthal assessment, as also in Rice rates, the classer not only considers the quality of soil, but also the quantity, quality and duration of the water supply, and further the distance from markets and climatic features; *i.e.*, to a large extent he includes in his classing the differences which in dry-crop land are dealt with *in the grouping*. It is therefore legitimate when Páts are so classed to fix the same maximum Pátashtal rates

throughout all the groups of the Táluka. The art of such classing is undesirably intricate and abstruse: it is described only in Mr. Fletcher's report, paras 5-7, pp. 54-5, Selection CCLIX, New Series, *Khánápur (Sátára). Revision Settlements.* It would perhaps have been better to have considered solely the quality and quantity of water, and if within the tract climatic communications, etc., had varied, to have met this by the same gradations of maximum Pátasthal rates as in grouping we apply to soil rates. Indeed, Mr. Fletcher himself (loc cit.) observes that Rs. 8 was the usual Deccan maximum, but in *more favoured* localities he considered a higher rate would be justified.

Of course, the constructors of the Bandhára had a natural right to its water, even though it might be conducted a considerable distance through, or near, the lands of other people who had not contributed to its cost Pátasthal irrigation is almost everywhere supplemented by wells on which Motasthal is charged, the classer judges which is the more important, and gives a "chad" for the other. These wells pick up the sub-soil water, frequently brought there by the Pát, and continue to water the crop after the Pát has ceased to flow. Therefore, the combination of a Pátasthal and Motasthal rate is very common. When the Páts cease to flow through disrepair, but the well irrigation still continues, then if the Pátasthal rate is removed, still the Motasthal should be retained, because the lands obviously have better facilities than ordinary dry-crop. And such lands are also liable to the position-class "chad" or "step up" in classification.

When at a Revision Survey enhancements of soil rates are limited to 33 o/o for the group, 66 o/o for the village, etc., these limits do not apply to or include Pátasthal (R. 3205-92). At a Revision Settlement, the Assistant Settlement Officer inspects all Páts and distributaries from tanks in the second class under the Irrigation Act, and all other tanks; see Director of Land Records and Agriculture's Circular A.-1003 of 1903.

4. After the series of famines from 1896 onwards, during which many Páts failed to a greater extent than the Survey Officers had anticipated, and after the Irrigation Commission, the whole subject came up for discussion (R. 8875-134-Conf. of 6-12-97; R. 1788-04, 2986-04, 3969-04 re-affirmed in 5050-04). It was finally decided (R. 2759-07) to abolish Pátasthal of either class A or class B in the tracts which were considered highly precarious, of which the following is a list. These orders contemplated a sacrifice of legitimate revenue and Government declined to revoke them (R. 6261-19); see Press Note in R. 13422-17 summing up the amounts abolished:—

[The Orders do not apply to Páts in charge of P. W. D. and repaired at Government cost (R. 3122-08).]

Wholly abolished—

District	Taluka
Sholápur	.. All talukas.
Ahmednagar	.. Shevgaon.
	Jamkhed.
	Karjat.
	Nevasa.
	Ráhuri.
	Sangamner.
	Kopargaon.
	Nagar (except 3 villages) (R. 6257–09 and 6261–19).
	Parner (except 25 villages) (R. 6257–09 and 6261–19).
	Shrigonda (R. 4631–11 and 6261–19).
Poona	.. Indápur.
	Bhimthadi.
	Sirur (R. 4675–16).
Násik	.. Nandgaon (R. 6351–08).
	Yeola (R. 2279–11).
Bijápur	.. All tálukas..
Belgaum	.. Parasgad.
Dhárwar	.. Ron, Navalgund, Gadag Mundargi. (R. 7087–07).

These Orders do not apply to inám villages coming under settlement because the alternative annual assessment under sec. 55, L. R. C., is inconvenient. Here the Superintendent of Land Records must inspect the Páts, and assess them for the settlement period under class A. Remissions can be given by the Collector (sec. 81A, L. R. C.) when supply fails (R. 11926-15).

5. For the remaining tracts where class A is still levied it was abolished for those Páts which were classed as precarious, but replaced (R. 3671-06, para. 12, and 6663-06), by an annual assessment of class B *based upon inspection.* Recent inspections in Purandhar and Tásgaon show that far too many Páts were classed as precarious, but Government have ruled (R. 6679-19) that it was highly inadvisable to reimpose assessment once definitely withdrawn. Lands not yet assessed but which receive regular Pát irrigation should be dealt with under the proviso of para. 4 of R. 4967-17. When the assessment is properly leviable six or more years out of ten it is obviously wiser to retain it as normal, and remit it in the other three or four years.

Partially abolished—

District	Táluka	
W. Khándesh	Shahada	R. 2132-09.
	Pimpalner	R. 696-06, 7270-06
	Sákri	R 1749-12.
	Dhulia	R. 10377-11.
E. Khándesh	Raver, Chálisgaon, Jalgaon, Bhusával, Amalner	R. 7049-08
Poona	Haveli	R. 7323-14.
	Purandhar	R. 6975-16.
	Junnar and Khed	R 10526-15 and 164-17.
Násik	Sinnar, Niphad, Nasik, Igatpuri, Chandor, Dindori	R 2279-11
	Bágian, Kálvan	R 163-14
Ahmednagar	* Akola (only 4 villages)	R. 6237-09
Sátára	Man, Karád	R. 13535-15
	Khatav*, Koregaon*, Wái*, Khandála	R 1753-17.
	Tasgaon, Walwa, Khánápur,	R. 6459-13, confirmed in R. 9257-19
Belgaum	Athni, Gokák, Sampgaon	R 10033-11.
	Chikodi and Hukeri	R. 1601-16.

Enquiries for Ratnágiri, Kánara abandoned (R. 10033-11).
None in Kolaba.

For the remaining Páts not considered "precarious" it was *retained* subject to the rules for remission in years of failure given as Order 33, Land Revenue Rules Though partial abolition of Pátasthal was thus sanctioned in several tálukas, no definite pronouncement was made as to whether any of these tálukas or portions thereof were to be considered "precarious". The Commissioners, C. and S. D., were therefore

* In these talukas Government have specially reserved the right to reimpose the Pátasthal assessment at any time

asked to decide this point (R. 4967-17). Certain tracts of Purandhar were classed as precarious in R. 9257-19.

6. The position then was that for considerable areas an annual assessment was to be imposed, upon inspection (para. 2 of R. 3969-01 and see Rev. Accounts Manual, pp. 140 and 148). The Orders up to 1915 left a considerable number of Páts liable to such annual inspection and assessment. But in R. 13535-18.12.15 it has been directed that new or revived Pát irrigation by a Bandhára on a stream is not to be so assessed, if all Pàtasthal rates on Páts below that Bandhàra have been abolished, unless upon personal inspection an officer not below the rank of Deputy Collector judges that the supply is constant and plentiful and obtained at small cost compared with the profits and should not go untaxed (R. 4967-17). This reduces the number of Páts assessable under sec. 55, L. R. C., but does not abolish the class altogether, and leaves some points as to the definition of stream still doubtful. It is hard often to judge which of two branches constitute the main stream, and whether the portion below their junction is more part of one than the other. The maximum rates for this temporary irrigation under sec. 55, L. R. C., have been variously fixed according to the following list :—

Ahmednagar ..	Not fixed, but in 8 tálukas totally abolished.
East and West Khándesh	Maximum Rs. 7 (R. 8044-03).
Násik ..	Various rates assessed by calculation under the Orders in R. 2847-04, 4034-14.
Poona ..	Maximum Rs. 12 (R. 2076-03).
Sátára ..	Maximum Rs. 12 (R. 4873-11).

Sholápur—

Sholápur and Bársí	.. Rs. 8.
Mádha	.. Rs. 7 (R. 6204-01).
Other tálukas	.. Rs. 6.

But subsequently cancelled by R. 2759-07 for all tálukas.]

The Collector has power to assess the rate under sec. 55 within these maxima (see entry 5 of R. 4317-02).

6a. This liability to occasional Pátasthal is no real discouragement of such enterprises. The rates unless most injudiciously assessed still leave ample profit to the irrigator (para. 5 of R. 3618-74). In assessing, regard should be had to the extent to which it is supplemented by wells Remember also that class A is levied alike in good and poor years though [illegible]

that there would not remain ample profit to stimulate the enterprise [para. 3 of R. 8875-97 (Confdl.)].

6*b*. For the annual schedule of lands liable . . .
sec. 55, see Revenue Accounts Man . . .
(including Assistant or Deputy) . . .
Crops actually raised will also see the soil assessment in each field (calculated by dividing the total assessment by the area, and compared with the known maximum rate of the group) He can then equitably fix the rate in proportion to the soil rate and also with regard to the crop grown which gives a clue to the duration and volume of the supply obtained. The Statement of previous years will also show the degree of stability of the irrigation Where the assessment has been made under sec. 101, L. R C, for the current settlement period, even though it has been removed, that rate or a slightly higher rate based thereon might appropriately be levied in the years in which the irrigation revives.

6*c*. If there is P. W Canal Irrigation in the Taluka, he will also have before him the sanctioned acre and crop rates. These are the same for all soils and therefore often lenient on the better soils It would not seem fair that water from a Pát not constructed by Government should be assessed as highly as similar flow-irrigation from a Government canal. But on the other hand, occasional class B assessment ought to be higher than perennial rates of class A which are payable even in a year when little water is got This was emphasised by Mr. H. S. Lawrence in paragraph 3 of his A 4931—27.10.03 in R. 652–03 [this Resolution is dated 27.1.03 though plainly it should be 1901] and supported by Government. The rates in para. 5 may be interpreted as based upon this principle. When, at a Settlement, rates for that same class of irrigation have been fixed for a group, the same scale of rates would therefore be inappropriate. Besides the proximity of markets and such general considerations the degree of difficulty of utilising the water is also to be considered, flow-rates being naturally higher than lift-rates [R. 8875–97 (Confdl)]. The need of reporting such proposed rates annually for sanction [R. 4301–00 (Confdl.)] is removed by entry 5 of R. 4347–02 and the orders fixing maximum rates. Rates for Gujarát are approved in R. 8875–97, though they are chiefly Motasthal rates except for three Tálukas of Surat.

6*d*. When a Revision Settlement is introduced into a "partially abolished" táluka, Government specially reserve the right to re-impose any such remitted Pátasthal rates *at any time* (R. 6975–16).

6*e*. When Pátasthal is removed from the assessment. still no change is made in the judi of Devasthan and non-service watan, and also, it seems, Ját (R. 2858–16) inám lands, *i.e.*, only the nuksan is reduced. In case of service (*i.e.*, Patil and Kulkarni) watan and sanadi lands, it effects the nim-judi only, if any (not the mamul) (R. 136–09) and the Collector may revise the remuneration and Scale Judi (F. 3914–15) reducing the Scale Judi to the level of the remaining (R. 285816). An exception was made in R. 1860–14 the . . . been calculated on land revenue *plus* Pátasthal in f. . . of inámdàr on condition of cultivation in person.

calculated upon an assessment including Pátasthal or Himayat, then on a reduction of the water rate a reduction of *judi* till it is not above the assessment is proper (R. 10198-16).

Permiss on.

7. The next question was whether after the permanent class A Pátasthal had been removed from any land, it might be irrigated from the old (or any other) Pát *with or without permission.* Government have ruled (R. 2759-07) that no permission is required, in the precarious tracts named above. by irrigators whose lands were entitled to the water of Páts before the abolition and who retain a prescriptive right. Other persons primarily would require permission; but as a general rule no *prior* permission is required to start a new Pát, or revive an old one. This is, however, subject to the Collector's veto if any objection is raised by persons interested and having a prior right to the water. Therefore in these tracts it is still requisite to record in V. F. I which were the lands entitled to water before the abolition of fixed Pátasthal and which retain the right of claiming this veto (paragraph 5 of R. 2759-07). In all villages the Bandháras and Páts should be marked on the map. The Irrigation Record of Rights (see para. 19 *infra*) rarely applies to Páts, since they are not usually large enough to be made second-class works.

In precarious tracts

8. In those tracts where class A Pátasthal is not wholly abolished permission is required for any new Bandhára or new irrigation from an existing Pát. This permission would, of course, be given at once if no right were injured. The principle of Government is that there should be the maximum of encouragement and the minimum of penalty for any such utilisation of natural resources (R. 6663-06 cancelling part of the rules in 3618-74).

In other tracts

9. From this it emerges that (*i*) in the precarious tracts permission is not required, but new enterprises may be subsequently vetoed if objected to; while (*ii*) in the other tracts permission is required, but will be given if reasonable. This amounts to much the same thing, and the plea of getting permission should not be allowed to become an instrument of harrassment or extortion in the hands of subordinates. Remember in both cases that though a right to water from a stream exists it may be limited to a certain quantity of water, or height of Bandhára, or length of time: to take more may throw other lands out of cultivation The erection of a steam pump instead of the Bandhára would be a gross infringement of rights and has sometimes been attempted The general rule is that the land highest up the Pát gets water first and so on till the lowest land has been watered, when the cycle re-commences. The "Phad" (or irrigation block) system in Khándesh and Násik (analogous in principle to town-planning theory) modifies this rule: in Sátára similar mutual arrangements as to rotation of crops in each year are found. The Collector should be guided by established custom, and often needs professional advice as to whether any change will injure the existing rights or not.

10. We next have to consider the cases in which new irrigation by Pát is commenced without permission, and injuriously. One form of this enterprise is to build a new Bandhára just above an existing old one. In a year of abundant water this might not injure the Bandhára lower down, but in scanty years might rob it of all its water. A still more pernicious form of 'enterprise' frequently reported from Násik is not to trouble to build a new Bandhára but to breach the Pát itself and steal the whole of the water before it reaches the fields of the owners. Obviously no principle of encouraging the use of natural resources could cover such enterprise as this. Penal rates were first sanctioned for Násik in R. 2847–04, and then enhanced in R 4034–14, and may extend up to ten times the irrigation rates leviable on the land: but the cost of removing the unauthorized work which is usually an encroachment must be borne by Government or by the irrigators who want it removed (sec. 61). But see R. 10382-16 for orders to amend the L. R. C. in this respect. It remains obscure whether in case (i) of para. 9 any penalty is leviable; or only the stoppage of the vetoed irrigation. Section 55, Land Revenue Code, does not empower the Collector to levy any penalty. But he can levy rates up to the *maximum* sanctioned by Government (see Chapter II, Order 3, Land Revenue Rules) and therefore he can practically levy penalties. Under sec. 214 a rule might be framed, but a breach of this rule could not be punished by a penal rate levied by the Collector, but only by conviction before a *Magistrate* (sec. 215).

11. After the Pátasthal has been cancelled on account of the disrepair and abandonment of a Pát, then in more favourable seasons, with more capital and enterprise, the irrigators may restore the Pát and the old supply may revive In these circumstances, in non-precarious tracts, can the former Pátasthal rate be *re-imposed* or temporary rates, under section 55, L. R C ? It appears that the former rate can and should be reposed because Pátasthal assessment was never levied in respect of the expenditure incurred in making the Pát (which is usually quite small— [illegible] 54), but only *vide* para. 4 [illegible] *i.e.*, the fact in respect of [illegible] most important [illegible] er up the hill-side. Its removal is [illegible] at the same rate if that Settlement [illegible] ec. 55, L. R. C., must be used till the asessment can be re-imposed at a new Settlement. It is clear that if even an existing assessed Pát is raised in class by tapping a new or enhanced supply a further rate can be imposed even during the currency of the Settlement; and Govt. now reserve all these rights (R. 164–17)

12. In the case of tanks, it is arguable whether Government are liable for assistance in the repairs. But in the case of Bandháras it has never been suggested that there was such liability. The Pátasthal tax was a tax on the income of the landholder in his capacity of landlord, or a tax on rental value, and the fact that Government did not construct or maintain the Páts, no more barred their taxation than private origin

bars income tax on trading profits. For the repairs of Bandháras, Tagávi can, of course, be advanced; the Commissioner can also make grants for their repairs out of the allotments given to him for the encouragement of irrigation and the construction of Tal embankments (R. 2279-11). There are, and always have been, some of these Bandháras and Páts in charge of the P. W. D. Under these, Irrigation rates are levied under sec. 44 of that Act, and none of the orders in R. 2759-07 and other Resolutions apply to them. There used to be a Pát Phálo or cess for the repair of Páts in Khándesh, which was added to the settlement dues in Amalner (R. 4313-89). But it was abolished by R. 3863-96, mainly because its existence led the people to think Government was solely responsible for the repairs: and it was desirable they should realise that the whole responsibility was on the irrigators.

13. To allow the use of water from a Pát or Tank free is on the same footing as grants of the Land Revenue. Such free grants are given (? by whom) only in special cases, and for (specified) special reasons and subject to revision at fixed periods (usually the settlement period, or less) (R. 5762-97).

A new feature of recent times is the use of water for industrial purposes (*e.g.*, Canal water by Sholapur Mills; Sabarmati river water for Mills at Ahmedabad; and well water at Viramgam R. 3263-20); G. I. P. Railway (A.I.—235-09) and (A.I.—879-13). A special agreement was advised to be drawn up by the R. L. A. and an arbitrary charge made. There is no imaginable basis of assessment except the 'Tenant's Profit basis' (see Land Acquisition Manual, para. 229). It seems dubitable if any other tax upon industry is justifiable except Income and Super-Tax. Plainly any such industry could be ruined, and the public much injured, if 'monopoly' rates (*i.e.*, as much as the user could be forced to pay) were charged.

14. Whether a landholder can sell or transfer his rights to water to the holder of other land is a question to be settled by local custom. It certainly complicates the Record of Irrigation Rights. There are unsettled points as to the liability of an Inámdár to pay the full rates for new irrigation or only rates proportional to his Judi.

II.—HIMAYAT.

TANKS IN GUJARAT AND SOUTHERN MARATHA COUNTRY.

[The leading discussion and orders are contained in G. R. 125 W.I. 1473 of 15.9.92, and 34 W.I. 419 of 5.3.95: which will be termed the Resolutions of '92 and '95.]

15. In the S. M. Country all water-rates for tank irrigation have been levied as a separable part of the fixed land revenue called the "water share". In Gujarát, it is called Himáyat (or 'protection') (henceforward called H) and Dhekudiat, when the water is lifted by basket from a Dhekudi or dripping well There is not much real difference between a tank and a Bandhára; but since, in Gujarát, the streams usually have

less gradient and catchment, the simple expedient of a direct flow led off by a channel from the stream has to be replaced by the more expensive arrangement of a dam and waste weir, and so on Sometimes the land for which the water is intended is on the *upper* side of the shallow embankment H is also levied for inundation from rivers and even from the drainage of roads, just as it is also charged (under another name) for the inundations on the banks of the Krishna. In Gujarát the tanks merely supplement the rainfall: they do not irrigate (like a Punjab canal) an entirely arid area In good years crops can be grown without tank water at all In poor years a single watering from the tank may make all the difference between a good crop and almost total failure. In these years the great value of the protection can be imagined. There is a tendency to condemn tanks as useless if in October they are found dry. But this is due to a misapprehension of their function. The method of assessing H does not differ widely from that employed for Pátasthal It must always be remembered that the amount imposed in Gujarát is based upon the classer's judgment of the probable average number of years (para 4 of R 5928-11.7.91) in which the tank would benefit and protect the rice crop. There is no idea that the whole of the irrigation of the rice every year should be performed by the tank.

16 The Joint Report outlines the classification method in para 61. There is no hint that the assessment was made in respect of any obligation upon Government to repair or construct the tanks. The idea never found any expression in Bombay before the remarks of Sir Thedore Hope in *1870* in the preamble of the Resolution of '92. *In Madras there* has been a regular distinction in assessment between tanks and canals maintained by Government and those not so maintained

17. For a description of the revised method of assessing H., not upon actual use but upon potentials, see R. 1211-68, R. 6015-84, and Commr., N. D.'s report 1045-30.3 65 (p 117 of S. S Manual, Volume III), the Report on the Chikhli Revision by Mr. E. Maconochie, Selection No. CCCLXXXI, page 26.

18. There is a traditional and customary obligation upon the irrigators to do petty repairs (defined in para. 4 of the Resolution of '92). (See also para. 115, Vol. I, of the Report of the Irrigation Commission.) If neglected, petty disrepair soon becomes important and expensive disrepair. *It therefore seems that almost all tanks not taken into the charge of the Irrigation Department should be brought under Act II* of 1914, which was enacted in consequence of para. 6 of W.I. 1308-02: it was found that agreements of the villagers were useless, and could not be enforced (para. 2 of the Resolution of '95). For circumstances in which the Act has been applied see R. 9586-15 and for confirmation of this view see R. 3669-16.

19. The repairs of tanks was not attempted by Government in the early years of our rule. Later, it became usual to expect the Rayats to pay *contributions*. This was found (para. 2 of Resolution of '92) to hamper the work, and it was finally decided largely on the writer's suggestion (para. 4 of W.I. 1308-02), to give up contributions altoget

The question then arises—which tanks should be repaired at Government expense and which should be rejected and left for the irrigators to repair? The general principle (W.I. 5735–14) is that in Gujarât up to 20 times H. may be spent; but in the S. M. C., where water-rates are higher than in Gujarât, only 10 times the water share is the fixed limit (which may be exceeded with sanction). It has not yet been decided whether this expenditure is to be regarded as final, or, if not, after *how many years* it may be repeated. W.I. 7263–16 still lays down no principle. The majority of the tanks should be transferred to the Irrigation Department (para. 5 of '95 Resolution): the amount of H. (Rs. 30) was to be the criterion for Gujarât [para. 8 (1) of '95 Resolution] and the area under command must be 20 acres (R. 11233–16).

20. If a tank, of which the entire water supply vests in Govt., is taken over and repaired by Government with the intention of keeping it regularly in repair and of controlling the distribution, it then becomes a "Canal" within the definition in the Irrigation Act (R. 11232–16), and consequently the H. assessment should be struck off after the expiry of the Settlement period: but if the supply is enhanced from a "new source," or greater catchment area, etc., a supplementary rate may be levied under sec. 44, Irrigation Act (in spite of the Settlement), as is done under all other Irrigation canals (R. 3669–16), provided the rate added to the H. does not exceed the water rate on lands not paying H. When such a repaired tank irrigates more land not previously assessed for water protection, then either annual irrigation rates may be levied under sec 44 of the Irrigation Act (if in charge of P. W. D.) or under sec. 55, L. R. C. (if Part X is applied), or the land may be classed and assessed to H. with reference to the amount and quality of the supply. This assessment under sec. 101, L. R. C., is preferable, according to the Joint Report and R. 6068–97 but is only possible at Settlement time. (*See* also para. 3 of W.I. 1702–02.)

21. But when a tank whose supply of water or embankments and works have been or may be improved at Government expense is not administered as a 'canal', then it should be brought [unless it also vests in Municipality under sec. 50 (2) (*b*) of the Municipal Act, R. 7324–18] under Act II of 1914 as a Second Class Irrigation Work, so that there may exist legal means of securing every year the execution of those small repairs which are necessary to prevent the development of serious disrepair: as well as power under sec. 80, Irr. Act, to levy fair rates: and also an authoritative Record of Rights (R. 3669–16). In this Record, the extent of the rights of Govt. to existing supplies of water and their freedom from [illegible]
must be recorded (R. 11232–16). [illegible]
sarily be gradual. The origin of [illegible]
1308–02, para. 7. Section 44 is excluded from Part X of this Act, and therefore sec. 55, L. R. C., must be used in conjuction with sec. 80, Act II of 1914: and even when Part X is not applied when the work is in charge of P. W. D., rates under sec. 55, L. R. C., will be assessed by a P. W. D. officer duly authorized (R. 11232–16). The Form and Rules of the Record were sanctioned in R. 14500–17.

Restriction of Irrigation Act, Part X, to works irrigating 720 acres and transferred to P. W. D. cancelled and extended to all 2nd class irrigation works Every tank from which there is irrigation should have R. R.

It has hitherto been the usual practice to designate all the irrigation tanks and Bandháras in the Deccan and Gujarát for which only Revenue Accounts are kept as "Second Class Irrigation Works". But since 1914, when Part X was inserted in the Bombay Irrigation Act, 1879, to provide for the proper management and maintenance of these works, some of them have been notified under section 73 of that Act and have been legally constituted "Second Class Irrigation Works". It has consequently been found necessary to distinguish these Second Class Irrigation Works from those to which Part X of the Irrigation Act has not been applied. The Governor in Council is therefore pleased to direct that only such of the works as are notified under section 73 of the Irrigation Act should, in future, be called and referred to in correspondence, reports, etc, as "Second Class Irrigation Works" whereas others which are not so notified should be termed and referred to as "Small Irrigation Tanks and Bandháras".

The technical distinction between the two categories of works mentioned above, will not affect in any way the Superintending Engineers' powers of sanctioning expenditure on repairs to these works as per orders contained in paragraph 2 of Government Resolution No. W.I.—11337, dated 20th November 1918, which will be applicable to both classes of these works. P. W D No W.I.—11690 of 29-7-21.

22 We then come to the Resolutions of '92 and '95. In the first, there was a general review of the whole question, and a Committee was appointed In the second, the Reports of the two Committees, for the Northern and Southern Divisions, were considered and orders given. Násik and Khándesh are dealt with in R 3803-96. It was not till R. 5475-05, 9393-07 and 11896-07 that a definite scheme of classification for Gujarát was sanctioned in order that the foregoing orders might be applied The tanks can be arranged according to the following table :—

	A Hitherto maintained by P. W. D.	B Now proposed to be maintained by P. W. D.	C Civil Agency Tanks.	D Second Class Irrigation Works.
Efficient	1	4	7	10
Inefficient but repairable	2	5	8	11
Inefficient or precarious, not repairable.	(3)	(6)	9	..

There will rarely be any of class 3; and class 6 is almost impossible. As to classes 1 and 2, no further classification or examination is to be

made, but the remaining classes are to be divided into three groups:—

Group I—Classes 4 and 5;
„ II— „ 7, 8, 10, 11;
„ III— „ (3) (6) if any; and 9.

To these is added a statement IV (or D) of lands under efficient tanks, but which the water for any cause does not reach, and which therefore are recommended for remission (R. 3669-16).

23. Two methods of making this classification are described in R. 9110-10, and unfortunately there is a difference between the two methods. Mr Gordon suggested that only those tanks which were, upon inspection of the crop returns, *doubtful*, should be inspected; while Mr. Curtis recommended that all tanks, which it was proposed to be classed as *inefficient* should be inspected Some might be very obviously inefficient, and would not have been inspected by Mr. Gordon's method. The general object of the classification is to determine some tanks to be handed over to the Public Works Department, and others to be abandoned altogether leaving as a residue the middle group, which will be moderately efficient and can be repaired voluntarily or under the influence of Act II of 1914 by the people, with or without Government assistance. R. 1967-13; R 6558-19 sanction an experimental scheme for this maintenance for five years

24 After this classification has been made for Gujarát, it then remains somewhat obscure what should be done in respect of H. assessed on land under tanks in Groups II and III. There are two possible theories of this assessment—

(*a*) as a rent for water supplied,
(*b*) as a tax on a natural facility.

If (*a*), then any abandonment of maintenance involves removal, even if water is still obtained with or without effort on the part of irrigators. But if (*b*), then abandonment of Government expenditure by no means involves remission, even the actual use of water is not to be proved so long as there is a facility. Theory (*a*) was definitely rejected in R. 2207-99. The orders given from time to time vacillate between the two theories, and it is not made quite clear how far later orders do or do not supersede earlier orders. In the Resolution of '92 for the S. M. C., para. 10 (3), it was implied that all land under tanks which Government do not intend in future to maintain will be at once relieved of water assessment even if the tank is still to some extent efficient. Also tanks classed as "one-man" tanks should be similarly treated [para. 4 (*a*) of the '95 Resolution]. But this was only a direction for classifying and in para. 3 of 2207-99 it is held not to mean that all H. should be struck off. "One-man" tanks were definitely ordered to be abandoned and land under them *classed as Dry-crop* in W. I. 1587-04, alike in group II or III (class 7, 8 or 9).

25. Not to tax when we do not maintain or improve has as its natural converse not to maintain or improve when we do not tax. When only one person is concerned, we take off the tax and leave the maintenance to him. The same argument is applicable to a body of irrigators, except only that since they will not act always in harmony and in their own interest a paternal Govenment is sometimes obliged to maintain the tank and continue the tax, when this can be done without financial folly. Obviously when any source of water has totally disappeared, and become entirely inefficient and cannot be repaired by Government, we cannot continue to levy assessment in respect of a facility (R. 5909–97) which no longer exists, and therefore as an act of grace the H. though fixed for the Settlement period is removed If, therefore, the orders distinctly said that land under " one-man " tanks and abandoned tanks (rent theory), or land which cannot possibly receive irrigation (facility theory) should be freed from the burden, they would be clear. For the S. M. C. it is believed all questions have been settled, and all tanks classed. But for Gujarát the language used is not always so clear. In R. 2207–99 Government deprecate any action of the Collector to remove H, *suo motu* and the inference is that for abandoned tanks and inefficient tanks it should still be levied, unless actual hardship is represented But R. 5475–05 breaks off abruptly from these principles, and again in R. 9393–07, para. 2, it is directed that after the tanks have been classified for repairs or abandonment then spontaneous recommendations to strike off the H. should be submitted *in each case* where the H. "really presses heavily" or as expressed in 34 W. I. 419–95 and R. 5909–97) "if the circumstances of the land show remission to be required." Presumably these doubts will be solved when the tanks have been classed and recommendations have been dealt with in R. 1967–13 all the H. in Group III was struck off unreservedly and without orders as to the tank beds (para. 10 of Ahmedabad Collector's letter in Selection CCL). So too for Sánand in R. 7885–16.

26. (Groups I and II in *para.* 20 above). The issues propounded by Mr H S. Lawrence, in the preamble of R. 5475–05, have never been specifically decided. But in R 3669–16 the matter has been made clearer —

(*a*) if Himáyat is not struck off, then when no water is got, casual remissions under R. 3669–16 are to be given (the Collector's general power of abating permanently the assessment in such cases was withdrawn by R. 1188–01);

(*b*) if Himáyat is struck off, then any new or revived irrigation subsequently obtained is not to be assessed (this is at variance with the Pátasthal orders);

(*c*) but if the land was never subject to Himáyat, and water is got from an efficient tank, sec. 55, L. R. C, is to be applied; and if from a tank in P. W. charge (Group I) then sec. 44, Irr. Act.

27. After the removal of H. in any case, the question would arise what was to be done with the tank bed. This is usually valuable land [illegible] given up and the [illegible] revenue than was [illegible] beds do not belong to Government, but are either held for cultivation by a private individual who himself irrigates from the tank, or are deducted as Pôt Kharáb from an occupied field. In both these cases, it would seem that the principle laid down in para. 6 of R. 2207-99 should be followed. Also see the note to Rule 4, para. 84, of the Joint Report of 1847. If the tank becomes inefficient and H. is proposed to be struck off, the bed cannot be reserved [para. 4 (c) of Resolution of '95] for the use of irrigators unless they enter into an agreement to keep the tank in repair, and to pay the water assessment, or a modified part of it. Probably the irrigators have vested rights in the tank bed which could be protected by suit against private holders. At any rate, it is desirable that in our Record of Rights we should show prominently what land is subject to this right, and in favour of what land the easement exists. When survey numbers are subdivided, *the Land Records Department prepares a* Hissawar Himáyat statement, to show which subdivision has the liability and right of water.

28. When H. has once been removed it is, for the rest of the Settlement period at any rate, a sort of remission or act of grace which could be reversed if it were discovered that an error has been made. [Sometimes the removal of water assessment is recommended merely because, though facilities and potentials are unchanged, the occupant actually does not utilise them even for so short a term as 3 years (Gokák Canal R. 10033-11). Sometimes when it is known that an examination is afoot or a Revision Settlement is being made, efforts are made to hoodwink officers (Fletcher on Amalner Settlement) and, especially in tank-classification made by Revenue Officers not assisted by P. W. D. and without survey-classification experience, errors are very possible]. Also, if by an act of nature the facilities for irrigation are revived, H. could presumably be re-imposed or revived, though in R. 3669-16 Government do not authorise this. Special examination of such cases would be desirable at a fresh Revision Settlement. If the revival of the irrigation is the result of expenditure by the irrigators, then it might possibly be held to be exempt in perpetuity under section 107, L. R. C. Ordinarily it would cost far more than the restoration of a Pát. If any land is newly irrigated then of course section 55, L. R. C. operates unless the improvement is not the utilisation of a source of water but the creation of one. The distinction is hard to grasp. It is the duty of the Revenue Department to see that no new land is brought under irrigation from a tank or Pát improved at Government expense without paying a proper return (W.I. 1702-02). If such restoration took place by nature, or by art, still the old irrigators would have a prescriptive right to the use, and persons not so entitled ought to be restrained from depriving them of water. Probably the best method of stopping this would be to charge prohibitive rates under section 55, as there is no other legal way of levying damages or penalties

to have been sanctioned: the rates in R. 8875-97 ... almost entirely for Motasthal (lift) irrigation. ...

principles for such assessments ... reduce a water assessment which he finds to be ... up to the amount of Rs 50, and the Commissioner ... amounts, but this power was withdrawn in R. 1788-01 ...

29. It has been also ruled [para. 8 (2) of Resolution ... when tanks irrigating Tálukdári land (which is not ... land, become inefficient, the standard assessment should ... as in the case of Khálsa land. But this again has been ... R. 7885-16 but without any reference to the '95 orders ... were not even examined But Government will [para. 8 (3) ... of 1895] not repair ... the orders in R. 13C ... there is no apparen ... culties might arise ... dári or Alienated village. There is one case at least in which ... lies partly in one and partly in another Native State, and irrig... in the Native States and in British territory. The preservation ... bed and the repairs of the tank were arranged politically.

30. Akásia (from ákásh—sky) means a charge put upon land ... of growing rice from rain-water, either directly received or ... by running off some adjoining and rather higher land. A field in a ... which collects enough rain-water from surrounding high ground to ... rice while other fields in the village cannot grow it plainly has a ... faculty deserving an enhancement of assessment. It is therefore ana... gous to the Deccan "position class", though that had rather refer... to the possibility of converting the land into new rice; whereas the Ak... assessment is imposed on land only when it has actually been converted. To this assessment general orders as to remission and suspension apply. When rice crop cannot be grown but ordinary dry-crop is substituted the Collector has authority to strike off the Akásia portion of the assessment. (R. 5175-05)

APPENDIX VIII.

Settlement Records.

Settlement Records may be divided into two classes, *viz.*, those used at the old type of Revision Settlement previous to the revision of the Land Revenue Code by Act IV of 1913, and those introduced after the revision of the Code.

Nos. 1-5 are of the old style, examples of which must be given as they are still in use in the talukas revised previous to 1913.

No 6 gives an example of the new style of *akarbandh*. The type is the same for all the four surveys with differences in the headings for the various classes of lands.

1. The Deccan Phaisal Patrak.

Survey No	Pót No	Total area. Acres	Deduct uncultur-able	Remainder culturable	Total assessment	Water cess	Name of occupant
1	2	3	4	5	6	7	8

2 The Gujarat Phaisal Patrak.

Survey No.	Area of Survey No	Deduct of Kharab	Remainder culturable	Assessment.	Tenure of land, whether Government or alienated, and, if the latter, whether service, devasthan, etc	Details.						Bagayat kasar.	Name of occupant, and, in the case of alienated land, of the holder.
						Jirayat.		Bagayat.		Rice.			
						Area.	Assessment.	Area.	Assessment.	Area	Assessment		
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Alarband of Mouje ______ *Taluka* ______, *District* ______

shewing area and assessment according to Revenue Survey.

Survey No.	Pot No.	Area. A G	Deduct unculturable area. A. G	Details of remaining culturable area.									Total assessment.			Soil assessment.	Water cess
				Dry-crop			Rice			Garden							
				A G	Rate	Assessment	A G	Rate	Assessment	A G	Rate	Assessment.	A G	Kacha assessment	Paka assessment		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

4 The Gujarat Akarband.

Akarband of Muje ______ , *Taluka* ______ , *District* ______

showing area and assessment according to Revenue Survey.

			Total area.				Details of lands shown in column 6 with its classification, sanctioned rate, etc.																									
							Jirayat.				Rice.							Land watered by dhekudis.							Alluvial land.							
											Soil.				Water.			Soil				Water.										
Survey No.	Pot No.	Description of land and tenure	Total area.	Deduct kharab.	Remaining culturable.	Distance in miles between the numbers and the village site.	Area.	Soil classification anna	Assessment per acre.	Total assessment	Area.	Classification annas	Assessment per acre	Total assessment.	Classification annas.	Assessment per acre	Total assessment	Area	Classification annas.	Assessment per acre.	Total assessment.	Classification annas.	Assessment per acre		Area.	Classification annas.	Assessment per acre.	Total assessment.	Total of columns 11, 15, 18, 22, 25 and 29.	Assessment finally fixed after making chār ūd	Jagayat kasar	Total of columns 31 and 32.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33

5 The Konkan Sud.

Survey No.	Name of field	Government or alienated	Description of land.	Pôt No	Phalni No	Total area	Deduct kharab	Remainder culturable	Assessment	Judi	Assessment of inam land *minus* judi.	Name of occupant.
1	2	3	4	5	6	7	8	9	10	11	12	13

6. Central Division and Southern Division Akarband for villages (for the Above-ghat districts including

Village ________________, Taluka ________________,

Survey No	Pôt No	Government (if held on restricted tenure it should be so stated) or alienated	Total area	Portion unculti-vable or unassessed	Jirayat.		Rice		Garden	
									Patasthal	
					Area	Assess-ment	Area	Assess-ment	Area	Assess-ment
1	2	3	4	5	6	7	8	9	10	11

which contain Rice and Garden Lands as well as Dry-crop

Above-ghat talukas of Kanara)

District_______________, for 19 .

Details of cultivable land								Details of assessment shewn in columns 9 and 11.		Remarks
Mota-sthal		Other		Total		Amount due on account of quit-rent	Assessment of alienated lands after deducting quit-rent	Land share	Water share	
Area	Assessment	Area	Assessment	Area	Assessment					
12	13	14	15	16	17	18	19	20	21	22



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